CONSTRUCTION NEWS

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RAILWAYS.

(denotes that this work is advertised in Engineering News.)*

ALTUS, WICHITA FALLS & HOLLIS.—We are officially advised that the TEXAS & OKLAHOMA CONSTRUCTION CO., Wichita Falls, Tex., has been awarded contract for building this railway from Altus, Okla., to Wellington, Tex., 58 miles. Right-of-way and capital have been secured and surveys made. J. A. Kemp is Pres., and R. A. Thompson, Ch. Engr. of the Altus, Wichita Falls & Hollis Ry. Co., at Wichita Falls.

ARBUCKLE & WESTERN.—Incorporated in Oklahoma with $100,000 capital to build a line from Ardmore, Okla., to Chickasha, Okla., 110 miles, with a branch from Milo, near Ardmore, to Lawton, 80 miles. Estimated cost, $16,000 per mile. The directors are Oscar O. Ayres, J. A. Bivins, J. R. Pennington and R. A. Hefner, of Ardmore, Okla., and Emory S. Ayres.

BRENHAM, BRAZOS VALLEY & GULF.—We are officially informed that this company has not yet organized and it has not been decided when construction will commence. Only the preliminary work is being done at present. A. Ludwig, Sealy, Tex., is Engr. Noted on Jan. 20, under "Texas."

BROWNWOOD SOUTHWESTERN.—We are officially advised that contracts for lumber to be used on the construction of this railway will be let on April 15, and contracts for rails, etc., about the same time. This line will be 30 miles long, running from Brownwood, Tex., to a point on the Colorado River. R. A. Love is Pres., and A. B. Carson is Engr., Brownwood, Tex. Surveys are made. Noted on March 17.

CALIFORNIA.—Citizens of Tehama, Cal., according to press reports, will raise $100,000 to be subscribed for the building of a railroad from Eureka to Red Bluff, Cal. This was decided upon at a recent meeting of citizens and the president of the Chamber of Commerce was instructed to appoint a committee of five to solicit the funds.

CANADIAN PACIFIC.—JOHN BRADLEY, of Brandon, Man., has been awarded the contract for building the new C. P. R. line from Craven, north of Regina, to Colonsay, Sask. The road will be 110 miles in length, running around the south end of Long Lake, thence northwards. Noted on March 17.

CHICAGO, MILWAUKEE & ST. PAUL.—McINTOSH BROS., 506 Pabst Bldg., Milwaukee, have been awarded the contract for the improvement of the tunnel, grading and bridge work by the Chicago, Milwaukee & St. Paul Ry., at about $1,000,000, on the new double-track system that this company is building between Chicago and Minneapolis, by way of Milwaukee. McINTOSH BROS. will also reconstruct the abandoned tunnel at Tunnel City.

CLEVELAND BELT LINE.—Contract has been awarded to J. C. CARLAND & CO., Spitzer Bldg., Toledo, Ohio, for the last section of the Cleveland Belt Line. Estimated cost, $1,000,000. The construction work between the Lake Shore & Michigan Southern Ry. and Mill Creek to the west of the city already has been completed and turned over to the operating department. The portion from Mill Creek east to the Erie R. R. is now under construction. The contract let to Carland & Co. covers the line between the Erie R. R. and the final section of the work. When the Belt Line is completed it will mean that all through freight coming from both East and West will be detoured and carried south of Cleveland and new connections will be made with every railway now entering Cleveland. This will do away with the present congestion of freight in the center of the city.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—Contract has been awarded to J. C. CARLAND & CO., Spitzer Bldg., Toledo, Ohio, for double-track work between Middletown and Miamisburg, Ohio. Estimated cost, $800,000.

COSTELLO BROS., St. Louis, Mo., have been awarded a contract, it is stated, for double-track work between Indianapolis and Anderson, Ind.

COLORADO, NEW ORLEANS & PACIFIC.—See New Orleans, Texas & Mexico Ry.

DELAWARE, LACKAWANNA & WESTERN.—Improvements are to be made between Analomink and High Bridge, Pa., it is reported, which will cost $300,000.

DULUTH, RAINY LAKE & WINNIPEG.—Contracts probably will be awarded soon for building the Duluth, Winnipeg & Pacific line from Virginia, Minn., south to Duluth, 74.4 miles, including 30 miles of heavy construction. There will be bridges over the St. Louis, White Face, Clouquet and Midway Rivers, also over a number of streets in West Duluth, and one tunnel 500 ft. long. The company also plans to put up ore docks and shops in West Duluth. M. H. MacLeod is Gen. Mgr., Winnipeg, Man.

DULUTH, WINNIPEG & PACIFIC.—See Duluth, Rainy Lake and Winnipeg.

GAINESVILLE, OKLAHOMA & WESTERN.—Incorporated in Texas, with $100,000 capital to build a line from Gainesville, Tex., to connect with the Rock Island System, near Bridgeport, Tex.; also from Gainesville to Orlena, on the Red River; altogether about 80 miles. The incorporators are J. C. Whaley, George E. N. Ball, S. M. King, H. W. Stork, W. O. Davis, R. E. Thomas, Owen Saunders, M. P. Kelley, O. F. Scott and J. T. Edwards, all of Gainesville, Tex.

GRAND TRUNK PACIFIC.—Contract has been awarded to the J. D. McARTHUR CO., Winnipeg, Man., for a branch line from Regina, Sask., north to Portal.

GREAT NORTHERN.—Contract has been let to GUTHRIE & CO., St. Paul, Minn., for building a cut-off between Fargo and Surrey, N. Dak.

ISLAND VALLEY RY.—ARMSTRONG & MORRISON, of Vancouver, B. C., have a contract for the construction of 25 miles of the Island Valley Ry. The promoters are John Castleman, William T. Corry and William Henderson of Vancouver, B. C. The work involves an expenditure of $500,000.

MANUFACTURERS' RAILWAY OF ST. LOUIS.—It is announced that the stockholders have authorized an increase in the stock from $250,000 to $5,000,000, and have authorized a bond issue of $5,000,000, the proceeds of which are to be used to build east and west terminals for St. Louis. The company owns and operates about 21 miles of track at St. Louis, Mo. G. F. Moore is Pres. and Gen. Mgr., St. Louis.

NEW ORLEANS, TEXAS & MEXICO.—Press reports state that the name of the Colorado, New Orleans & Pacific Ry. has been changed to the New Orleans, Texas & Mexico Ry.

PARIS & MOUNT PLEASANT.—We are officially advised that this company has now completed grading for 25 miles from Paris, Tex., to Bogota, Tex., and is now in the market for steel rails, frogs, switches, fastenings, etc. The contract for creosoted ties has been let; track-laying and bridge work will be let within a month. R. F. Scott is Pres.; H. P. Mobberly is Ch. Engr., Paris, Tex. Noted on Dec. 9, 1909.

PITTSBURG & SHAWMUT.—Edwin E. Tait, Pres., Bradford, Pa., informs us that the construction contract for the Pittsburg & Shawmut R. R. was awarded last September, and work is progressing daily with ten large steam shovels, and a large force of men and equipment. The contracts for the bridges and viaducts will be let very soon. Most of the ties have been purchased, and the company is receiving bids on other construction material from time to time as it needs the same. The company expects to complete the whole line of the railroad about October, 1912. The Pittsburg & Shawmut R. R. Co. is constructing about 100 miles of road, extending from Hyde, Elk County, Pa., to Brockwayville and Knoxville and along Mahoning Creek, crossing the Allegheny River and thence down the western side of the river to connect with the West Penn division of the Pennsylvania R. R., at Freeport, and to connect with the Bessemer & Lake Erie R. R. at or near Houseville. It also has connections with the Buffalo, Rochester & Pittsburg R. R. at West Mosgrove and at Brockwayville and with the Pittsburg, Shawmut & Northern R. R., near Brockwayville. The new road will also connect with the Pennsylvania R. R. at Brookville.

STUTTGART & RICE BELT.—Company has been chartered, with $78,000 capital, to build a line about 40 miles long, from Mesa (Devall Bluff), Ark., south to Stuttgart, and thence to Coopers, Ark. It will be about 40 miles long. The directors and incorporators are: J. R. Porter, L. H. Morphew, W. M. Price, Geo. W. Fagan, J. A. Watkins, Walter J. Miller, Geo. C. Lewis, R. H. Toll, J. G. Thweatt, J. M. McClintock, Elliott Tollmann, Edward Pettit, John L. Ingraham and Philip Reinsch, of Devall Bluff, Ark.

ELECTRIC RAILWAYS.

PORTLAND, ME.—The reorganized Portland, Gray & Lewiston R. R. Co., it is stated, will soon begin construction on its line, which is to be 28¼ miles long. It will connect Lewiston, Auburn, New Gloucester, Gray, Cumberland, Falmouth and Portland. As previously noted, surveys are made. W. S. Libby and H. M. Dingley, of Portland, are interested. Noted on Aug. 12, 1909.

WINTHROP, MASS.—Company has been organized to build a railway line connecting the Winthrop Beach station with Point Shirley, along the North Shore. At present carriages furnish the only connection between these two points. Edgar Whitney, of Winthrop, heads the new company, and the principal stockholders are Charles L. Ridgeway, Henry S. Fisher, Frank W. Tucker and William P. Brown. Work on the new line may begin within a few weeks, and it is expected that cars will be running before summer. Mr. Tucker is quoted as saying that it had not been decided yet whether to use gasoline or storage batteries for power, but that in no case would the road be operated by an overhead trolley.

WORCESTER, MASS.—The Providence & Worcester St. Ry. Co., which plans to build a line connecting Worcester and Providence, R. I., has been granted a franchise in Worcester. The company, under this grant, fails to acquire the right to come to the center of the city on its own rails, but will have to arrange to use the rails of the Worcester Consolidated St. Ry. Co. to get to City Hall. The company was chartered several years ago to build a line from Worcester to Providence by way of Millbury, Sutton, Manchaug and Douglas, thence into Rhode Island, in Burrillville, crossing the Rhode Island Co.'s Woonsocket-Pascoag line at Mohegan and following in a general way the Douglas pike straight through North Smithfield, Smithfield and North Providence to Douglas Ave. in Providence. The company is reported as ready to begin construction this year. The line as projected is about 45 miles between the centers of the terminal cities.

BRIDGEPORT, CONN.—See item under Manufacturing Plants.

CAMDEN, N. J.—Judge Rellstab, of the United States Court, at Trenton, has confirmed the sale of the Camden & Trenton Ry., which has been in the hands of a receiver for some time, to a committee representing the bondholders, whose bid was submitted some time ago. The price is $675,000. The road is to be operated under a reorganized company to be known as the Riverside Traction Co. The road extends from Camden to Trenton and there connects with the Trenton & New Brunswick R. R., which makes through connections with lines of the Public Service Corporation, to Jersey City. Extensive improvements are planned, according to press reports, by the management of the reorganized company, including the expenditure of about $500,000 for the betterment of the road and service. Another feature is to be the cutting down of the running time between Camden and Trenton about three-quarters of an hour. Noted on March 31.

PITTSBURG, PA.—An important change in the organization of the West Penn Railways Co. will be effected soon, according to press reports. This corporation, with lines traversing Fayette and Westmoreland Counties, is to be known as the West Penn Traction Co. and capitalized at $25,000,000. With the reorganization will come improvements contemplated for six months, among them construction of the trunk line connecting West Newton with McKeesport and running from West Newton to the Hunker valley. Engineers have just completed the survey of a line from Greensburg to Latrobe. Just as soon as the Greensburg Council will give its approval and the right-of-way over the streets at Greensburg the work on the Latrobe and Crabtree branch will start. J. L. Fritsch is Ch. Civil Engr., Connellsville, Pa.; A. E. DuBois is Asst. Secy., 345 Fourth Ave., Pittsburg.

CLARKSBURG, W. VA.—The Clarksburg & Weston Traction Co. has been organized in Clarksburg to build an electric railway from Clarksburg to Weston. S. G. Monroe, Clarksburg, is interested. Noted on March 31.

FLORENCE, ALA.—Thurston H. Allen, Florence, is interested in promoting a 75-mile electric railway between St. Florian, Bailey Springs, Mussel Shoals Canal, Rogersville, Athens and Huntsville.

INDIANAPOLIS, IND.—The Indianapolis & Cincinnati Traction Co. will be reorganized to build an extension from Connersville, Ind., to Hamilton, Ohio, 30 miles. Charles L. Henry, Receiver for the Indianapolis & Cincinnati Traction Co., has requested Judge Vinson Carter, in the Superior Court, to give a few days' extension from April 1, the date set some time ago for the filing of a report in court concerning what progress had been made by the committee of bondholders which had taken up the task of reorganizing the traction company. Noted on March 3.

CHRISNEY, IND.—Citizens here will vote a subsidy of $20,000 to the Evansville Rys. Co. to build an extension between Richland and Chrisney, eight miles. W. A. Carson, Evansville, is Gen. Mgr.

MATTOON, ILL.—M. E. Sampsell, Pres. of the Mattoon City Ry. Co., has been granted the franchise and contract to light the streets of Charleston, Ill., for ten years, and also a franchise to build a city line in Sixth St., from the railroad depots to the Eastern Illinois Normal School, and franchise to extend the Mattoon-Charleston Interurban Ry. line to the eastern corporate limits of Charleston. This company has been granted franchises by the legislative bodies of Charleston, Ashmore and Kansas, will apply to the City Council of Paris for a franchise. Noted on March 3.

PONTIAC, ILL.—The Bloomington, Pontiac & Joliet Elec. Ry. Co. will build an extension from Pontiac to Lexington, 20 miles. F. E. Fisher is Gen. Mgr., Joliet, Ill.

FOND DU LAC, WIS.—Surveys are reported to be completed for the Wisconsin Southern Ry., which has secured the necessary right-of-way for its proposed electric railway, which is to connect Madison, Sun Prairie, Columbus, Beaver Dam, Juneau, Horicon, Mayville, Knowles, South Byron, Brownsville and Fond du Lac, and from Knowles will connect Lomira, Ashford, Campbellsport and Plymouth. It will be about 120 miles long. Capital stock authorized, $3,500,000 preferred, $1,500,000 common. Bonds authorized, $25,000 per mile, not to exceed $5,000,000. Charles D. Smith, Fond due Lac, is Pres. and Gen. Mgr.; M. A. Jacobs, Beaver Dam, Vice-Pres.; M. W. Smith, Fond du Lac, Secy. Headquarters, 16 South Main St., Fond du Lac.

SIOUX FALLS, S. DAK.—Right-of-way is being secured by the South Dakota Interurban Ry. Co. for its proposed line between Sioux Falls and Bijou Hills, 160 miles. W. E. Miller is Pres., and F. E. Graves is Secy., Centerville, S. Dak. Noted on Nov. 18, 1909.

THERMOPOLIS, WYO.—The East Thermopolis Power Co. will apply for a charter to build an electric railway in Thermopolis. Incorporators: H. P. Rothwell, Martin McGrath and Ira E. Jones, of Thermopolis.

DALLAS, TEX.—Grade lines for the use of the interurban railway builders have been prepared in the office of J. M. Preston, City Engr. By unanimous vote, the Board of Municipal Commissioners instructed the engineer to prepare such profiles as may be needed and to furnish them to the persons ready to begin the building of the line through a part of East Dallas and elsewhere in the city as specified in the franchises granted in 1906 to "J. Mercer Carter and associates." In a resolution adopted, the board refrained from any expression as to the present owners of the franchise, merely instructing the engineer to do his part and to furnish the builders with the necessary data. This will leave the city clear and the builders may do their part toward complying with the terms of the franchise. There are three separate grants to the J. Mercer Carter franchise owners. One is in East Dallas, one in West Dallas, and another connecting the two.

The Terrell & Dallas Interurban R. R. Co. has been organized to build between Dallas and Terrell, 30 miles. Company has been at work since November making surveys. Wm. Cook, Dallas, is Ch. Engr. E. W. Morton, Jr., W. A. Green, Alex Sanger, C. L. Wakefield, J. T. Elliott, Edward Gray, R. Liebman, R. Nicholson, John M. McCoy, Mr. Cleaver, N. Nigro, M. H. Mahana and Thomas Layden, all of Dallas, are interested. Noted on Jan. 13.

FALFURRIAS, TEX.—The Miller Bros. Co. is interested in a project to build an interurban railway from Realitos to Falfurrias, 33 miles, and thence to Kingsville, 26 miles further, and finally to Corpus Christi, a total distance of about 95 miles. The line would connect with the Texas-Mexican, the San Antonio & Aransas Pass, and the St. Louis, Brownsville & Mexico railways. The plan has not yet been financed.

STILLWATER, OKLA.—Through the efforts of the Retailers' Association of Stillwater, an interurban railway is being promoted, according to newspaper reports, which will build a freight and passenger line connecting Stillwater with Perkins, Yale and Morrison, and thence back to Perkins again, 50 miles long. The cost of grading and constructing will be about $600,000, while the plant and rolling stock will cost about $400,000 more. The charter for the company is to be applied for immediately and the work of construction will commence soon afterward.

LAWTON, OKLA.—President Taft has signed the congressional act granting to the Lawton & Fort Sill Electric Ry. Co. right-of-way through the Fort Sill Military Reservation. The Indian Department has already promised right-of-way through the mile of Comanche Indian School land between Lawton and the military reservation. The only detail now remaining is the location of the survey through these reserves. The Lawton & Fort Sill Electric Ry. Co. is capitalized for $250,000 and proposes to build from Lawton to Medicine Park, via Fort Sill, a distance of 14 miles. In Medicine Park 650 acres of land is owned by the company and about $100,000 of improvements, including two lakes, driveways, hotel and summer cottages, are now in course of building. The officers of the company are: Simon Smith, Oklahoma City, Pres.; David L. Sleeper, Oklahoma City, Vice-Pres. and Counsel; W. H. Pattie, Lawton, Secy. and Gen. Mgr. The Directors include Simon Smith, D. L. Sleeper, W. H. Pattie and J. B. Sleeper, of Lawton. Noted on Dec. 23, 1909.

WENATCHEE, WASH.—The Wenatchee Valley Railway & Power Co. plans to begin construction work on its proposed railway as soon as all the fanchises are obtained from the cities along the route. It will extend from Wenatchee to Monitor, Cashmere, Peshastin and Leavenworth, a distance of 50 miles. Capital stock, $1,500,000. Power for railway and lighting purposes will be obtained from a plant to be built on the Wenatchee River. Contracts have not yet been awarded. A. J. Linville, Wenatchee, Pres.; H. A. Chapin, Wenatchee, Vice-Pres.; John Godfrey, Wenatchee, Secy.; C. A. Battles, Wenatchee, Treas.

FAIRDALE (North Yamhill post-office), ORE.—Articles of incorporation have been filed by the Fairdale, Trask & Tillamook Ry. Co., which will build a railway from Fairdale in Yamhill County to Tillamook in that county. Capital stock, $10,000. Principal place of business, Portland. Incorporators are R. Hawkins, A. B. Wastell and J. M. Gearin.

MARSHFIELD, ORE.—The Coos Bay Rapid Transit Co. has been incorporated to build an electric railway system to include

Marshfield, Empire, North Bend and other towns on Coos Bay. Capital stock, $1,000,000. Incorporators are L. D. Kinney, Geo. M. Everett and Geo. W. Kitchen.

PETALUMA, CAL.—The Petaluma & Santa Rosa Ry. Co. has under consideration an extension from Graton to Guerneville; also a branch to Camp Meeker. E. M. Van Frank is Pres. and Gen. Mgr., Petaluma.

COALINGA, CAL.—The Town Council has granted a franchise to C. L. Morrill to build a 6-mile railway in Coalinga. It is planned to extend this proposed railway 15 miles beyond Coalinga north and east.

BAKERSFIELD, CAL.—H. A. Jastro, Gen. Mgr. of the Power, Transit & Light Co. of Bakersfield, has sent to the main offices at San Francisco a strong recommendation in support of a resolution, which the Kern County Board of Trade passed recently, favoring the construction of an electric railway from Bakersfield to the West Side oil fields.

SHERBROOKE, QUE.—The Street Railway extension by-law was recently passed by the rate-payers of this city by a vote of 336 to 85. The by-law provides for extending the franchise of the Sherbrooke St. Ry. Co. for a period of 40 years. The city is to have the right of purchase at the expiration of 20 years. The company is given the right to sell power developed in the city to the extent of 1,000 HP., to concerns not served by the city. It binds the company not to compete with the city in the sale of power. In return for these concessions the new company pledges itself to spend $500,000 in extending and bettering the present system. The company agrees to double its present mileage, which is about seven miles. The by-law provides that all work must be completed within 29 months after its passing. Bonds will be issued at once, it is stated, and operations begun. Ralph Denio is Vice-Pres. and Gen. Mgr., Bristol, Vt.

ST. CATHARINES, ONT.—The Niagara, St. Catharines & Toronto Electric Ry. Co. has been granted approval by the Board of Railway Commissioners for the route of its projected road from Welland to Bridgeburg, by way of Port Colborne. The link between Welland and Port Colborne is already under construction. The remaining section, between Port Colborne and Bridgeburg, will be proceeded with soon. When this road is completed the company will have a through line from Port Dalhousie, on Lake Ontario, to Port Colborne, on Lake Erie, and the International Bridge, opposite Buffalo. The distance between Bridgeburg and Port Colborne is approximately 20 miles. E. F. Seixas is Gen. Mgr., St. Catharines.

ORTIZ, STATE OF CHIHUAHUA, MEXICO.—Col. Antonio Ramos Cadena and Serveriano Calderon have obtained a concession from the government of this state for the construction of an electric railway to run between Ortiz and the town of Meoqui, a distance of about three miles. The line will also traverse the principal streets of the two terminal towns. It will traverse the rich valley of the Conchos River and will handle freight as well as passengers.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

PITTSFIELD, MASS.—The General Electric Co. announced on March 25 that $500,000 would be spent here this year in adding new works to its Stanley plant. Three contracts for buildings to cost $200,000 have been let. The company is having plans drawn for a punch press building 375 × 120 ft., and a building 600 × 80 ft. four stories high, for office, storage and manufacturing uses. All the buildings will be of brick and steel construction and will be finished within a year.

BOSTON, MASS.—We are officially advised that one bid was received on April 1 by Guy C. Emerson, Supt. Streets, for furnishing gas and lighting with incandescent mantle burners such streets, parks and alleys as may from time to time be designated by the city for alternative periods of five or ten years, from July 31, 1910. Approximately 12,000 lamps. For five and ten years (a) lanterns with single gas incandescent burners per lamp per year, (b) with two gas incandescent burners per lamp per year, (c) lighting and care of open flame fire alarm signal lamps per lamp per year: Rising Sun St. Lighting Co., 31 Milk St., Boston, (a) $23.60 upright, and $24.10 inverted; (b) $35.70 and $31.29; (c) $16.90. For ten years, (a) $23.35 and $23.85; (b) $35.45 and $35.95; (c) $16.90.

WOONSOCKET, R. I.—The Woonsocket Electric Machine & Power Co. has decided to install an experimental system of magnetic lamps for street lighting.

BRIDGEPORT, CONN.—See item under Manufacturing Plants.

WATERBURY, CONN.—Plans are nearly ready for bids for the construction of a $500,000 power plant in this city for the Housatonic Power Co.

BUFFALO, N. Y.—Plans are being prepared for the installation of a 750-HP. power plant in the Erie County prison. The equipment will include boilers, engine, generators, pumps, etc., including controlling apparatus. The plant will also furnish steam for heating purposes.

ALBANY, N. Y.—F. B. Ware, State Arch., we are officially advised, has engaged Nygren, Tenney & Ohmes, 130 Fulton St., New York, Electrical Engrs., to advise with him relative to plans for the new $500,000 power-house to be constructed by the state at Albany for providing heat and power for the Capitol and new Educational Building.

AKRON, N. Y.—The citizens on March 15 voted to grant franchise to the Board of Trade, to have an electric power system installed.

ROCHESTER, N. Y.—Work on the erection of the 900-HP. and 2,100-HP. hydraulic turbines of the Rochester Railway & Light Co. has been begun by the ALLIS-CHALMERS CO., of Milwaukee, Wis., which has the contract.

GETTYSBURG, PA.—The Gettysburg Lighting Co. is in the market for two 200-HP. boilers (Hartford Boiler Insurance Co.'s specifications), piping, etc. C. T. Leland is Treas., 2215-2217 Land Title Bldg., Philadelphia, Pa.

LANSDALE, PA.—The Montgomery Heat & Fuel Co., Witherspoon Bldg., Philadelphia, proposes to spend about $60,000 for improvements. The company is now asking prices on service material. H. T. Duke is Engr. and Gen. Mgr.

QUEEN JUNCTION, PA.—The S. H. Roberts Boiler & Tank Co. is erecting a new plant in Queen Junction, Pa., which will be equipped for manufacturing car tanks and riveted steel pipe. It is reported that the company will require an air compressor, 2-stage type, for 250 cu. ft. of air, a 250-HP. water tube boiler and a 30-KW., 220-volt, alternating-current generator.

THURLOW, PA.—The American Steel Foundries Co., is making some changes in the electrical equipment of its shops and is about to install a 200-KW. induction motor generator set. The alternating current side will receive 2,200-volt, 60-cycle, 2-phase current, while the output will be 250-volt, direct-current. A 2-panel switchboard will carry the control instruments. This apparatus will be furnished by the ALLIS-CHALMERS Co., of Milwaukee, Wis.

PITTSBURG, PA.—The Edward E. Rieck Co. have awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for furnishing an 18 × 24 single tandem, horizontal, double-acting gas engine, which will operate on natural gas.

ANNAPOLIS, MD.—A bill incorporating the Deer Creek Electric & Power Co. was introduced in the House on March 21. The incorporators are: J. Frederick Crew, Hugh J. Jewett, Edward M. Allen, James T. Jones, George E. Silver, Michael H. Fahey and D. Gilpin Wilson.

*WHEELING, W. VA.—We are officially advised that bids were received on March 9 by Capt. F. W. Alstaetter, Corps Engrs., U. S. A., for constructing a fire-proof power-house; installing 100-HP. gas engines, air compressors, receivers, piping, etc., and drilling a well at each of Dams Nos. 8 and 11, Ohio River. The lowest bidders follow: Lot A, power house, Dam 8, Hile & Higgs, Parkersburg, W. Va., $27,524; Dam 11, same, $27,524. Lot B, gas engines, Dam 8, Gee Electric Construction Co., Wheeling, W. Va., $8,052; Dam 11, $8,052. Lot C, air compressors, Dam 8, G. & W. Mfg. Co., 26 Cortlandt St., $3,670; Dam 11, $3,670. Lot D, air receivers, Dam 8, Bury Compressor Co., Erie, Pa., $760; Dam 11, $760. Lot E, pipe, valves, etc., Dam 8, G. & W. Mfg. Co., $4,113; Dam 11, $4,113. Lot F, well and pump, Dam 8, Edward Christman, Massillon, Ohio, $1,411; Dam 11, $1,417. Lot G, well and air lift, Dam 8, James Kinney, Jr., Bellaire, Ohio, $1,065; Dam 11, $1,065.

GREENVILLE, S. C.—Contract for the electrical work on the Masonic Temple at Greenville has been awarded to WITMAN & MOUNTFORD, of Macon, Ga.

DENMARK, S. C.—The Denmark Ice & Fuel Co., recently granted a franchise in Denmark, will install a plant in November. The company will furnish electricity for street lighting, residence and commercial lighting. W. J. Long is Pres.; William D. Garvin is Mgr.

WAYCROSS, GA.—The Ware County Light & Power Co. has awarded contract for the construction of its power-house and gas plant to EVANS & CO., 11 East Lexington St., Baltimore, Md.

ATLANTA, GA.—Bids are asked by James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C., until 3 p. m., April 9, for furnishing and installing lighting fixtures in the post-office and court-house, Atlanta.

CORDELE, GA.—Plans have been completed for the erection of the transmission line from the proposed power plant of D. J. Zeigler & Co., now in course of construction on the Flint River, to Cordele, by Americus & Fitzgerald. The company is building a concrete dam and hydroelectric power plant on the Flint River to cost $1,000,000, near Warwick, ten miles from here, and proposes to furnish electricity to all towns within a radius of 35 or 40 miles.

GREEN COVE SPRINGS, FLA.—Bonds for $45,000 have been sold for the construction of a municipal electric light plant, water-works system and street improvements.

LAFAYETTE, ALA.—The citizens have voted to issue $40,000 of bonds to enlarge the municipal electric light plant, and install water-works and a sewerage system.

OBION, TENN.—See item under Water Supply—Irrigation.

CARLISLE, KY.—The citizens contemplate the organization of a company to drill for gas here.

COLUMBUS, OHIO.—The Board of Managers of the Ohio State Penitentiary is planning to extend the power equipment of the prison and has awarded contract for the necessary generating apparatus to the ALLIS-CHALMERS CO., of Milwaukee, Wis. This will include two 22-in. and 40-in. × 36-in. heavy duty cross-compound condensing engines, operating at 120 r. p. m. with a steam pressure of 150 lbs. and a vacuum of 26 ins. referred to a 30-in. barometer. These engines will be directly connected to a 600-KVA., 480-volt, 3-phase, 60-cycle alternator, the units being of Allis-Chalmers make throughout.

CLEVES, OHIO.—The Big Miami Valley Development Co., lately incorporated with a capital stock of $5,000, which will be increased to $500,000 if preliminary surveys prove satisfactory, proposes to harness the undeveloped power of the Big Miami River and establish a large manufacturing center near Cleves. It is estimated that this stream has power sufficient to furnish light for the city of Cincinnati and power to operate all the industrial concerns in the immediate territory. Oliver Swisher, Electrical Engr., has been employed to make surveys. The falls, from which the power is to be derived, are between Cleves and North Bend. It is estimated that the construction of two dams will be necessary, and plans are being made for this work. Morgan Wamsley, of Cleves, is Pres.

SANDUSKY, OHIO.—The City Council is considering the establishment of a municipal electric light plant in connection with the water pumping station. Estimated cost, about $40,000.

NORTH BALTIMORE, OHIO.—The Town Council has granted F. J. Miller, of Fostoria, Ohio, a franchise to construct and operate an electric light plant here. Under the terms of the franchise the plant must be completed within 90 days.

WAYNETOWN, IND.—The Waynetown Electric Light Co. is ready to receive bids for the construction and equipment of a new lighting plant. S. C. Rowland is Pres.

LOGANSPORT, IND.—We are officially advised that the city is contemplating granting a franchise to some person or company to install a heating plant for heating business houses and residences. D. D. Fickle is Mayor and Pres. Bd. Pub. Wks.

STURGIS, MICH.—Bids will be received until April 12 by M. E. Aulsbrook, Pres. Bd. Pub. Wks., for a vertical hydroelectric, direct-connected unit of 600-KW. capacity, comprising a hydraulic vertical traction turbine, shaft, bearings, one 600-KW. A. C. exciter unit, comprising turbine, shaft and exciter generator; one hydraulic governor for A. C. generator unit; six oil-cooled A. C. single-phase, 60-cycle transformers, 2,300 to 23,000 volts KW. capacity each; one 3-panel switchboard with equipment for handling output of above apparatus. G. S. Williams is Engr., Ann Arbor.

CORNELL, ILL.—The Cornell Electric Light & Power Co., of Cornell, was licensed on March 9 to incorporate. Capital, $5,000. The incorporators are: F. H. Rucker, A. R. Gourley and William Brunskill.

OLNEY, ILL.—Bids are asked until April 11 by J. B. Porter, Chn. Light Com., for lighting the streets.

MOLINE, ILL.—The People's Power Co. has awarded contract to the WESTINGHOUSE ELECTRIC & MFG. CO., 307 Fifth St., Pittsburg, Pa., for the installation of a new engine and generator in its power-house here. Estimated cost, $250,000.

HATFIELD, WIS.—W. J. Ferris, Pres. La Crosse Water Power Co., La Crosse, announces that plans have been completed and submitted to contractors for bids, on the new East Fork dam, which is to create a 5,000,000,000-cu. ft. lake north of Hatfield, and which will help the operation of the Hatfield water power. The new dam is to be 33 ft. high, 350 ft. long with six 5 × 6 gates in the bottom, and on a sloping side, will have dike 4,000 ft. long and 33 ft. high where it connects with the dam.

BIRCHWOOD, WIS.—The Wisconsin Light & Power Co., which has control of the dam at the foot of lower Birch Lake, is making preparations to remove the present wooden dam and replace it with a roller concrete dam, four feet higher than the old one.

ANAMOSA, IOWA.—The Anamosa-Oxford Junction Light & Power Co., W. C. Hill, Secy., proposes to spend at once $50,000 for improvements, to include 16 miles of transmission line, new engine, generator and water wheels.

SYRACUSE, KAN.—The citizens have voted $39,000 of bonds for the construction of an electric light plant and water-works system in Syracuse.

FAIRBURY, NEB.—See item under Water Supply—Irrigation.

BEATRICE, NEB.—G. W. Steinmeyer, by his attorneys, Hazlett & Jack, has filed a suit in the District Court asking that he be granted a water right and permission to put in a dam in the Blue River about half way between Beatrice and Holmesville. It is his intention to use the water power to generate electric current to supply light and power for Beatrice consumers. The dam site is located at the Lash farm, about half way between this city and Holmesville.

BROKEN BOW, NEB.—F. H. Davis, of Omaha; John T. Burke, of Aberdeen, S. Dak., and F. M. Currie are contemplating projecting a large power plant on the North Loup. Estimated cost, $300,000.

MINDEN, NEB.—W. H. Metson and P. O. Chappell are making preparations for the construction of a large hydroelectric plant here. The equipment will include a 1,500-KW., 2,300-volt, 3-phase, 60-cycle, alternating current generator, direct connected to a hydraulic turbine; a 65-KW. exciter set, motor driven, and a 6-KW. exciter set operated by an impulse wheel; also six 200-KW., oil-filled, self-cooled transformers for transforming current from 2,200 to 55,000 volts.

BISMARCK, N. DAK.—Herman Kretz & Co., Archs., 1016 New York Life Bldg., Minneapolis, have prepared plans for the power plant which the Bismarck Electric Co. will erect here. It will be 1 story, 90 × 83 ft., of concrete construction, brick exterior, with steam heat and electric wiring.

GRAND FORKS, N. DAK.—Contract has been awarded by the city to J. G. ROBERTSON, of St. Paul, Minn., for furnishing and erecting electrical mechanical equipment for the electric light and water-works plant at $14,900.

RAPID CITY, S. DAK.—The Dakota Power Co. has engaged the Missouri Valley Engineering Co., of Vermilion, S. Dak., to prepare plans and supervise the construction of its proposed hydro-electric power plant in the Black Hills, near here. Estimated cost, about $250,000. R. M. Fulweiler is Ch. Engr.

SIOUX FALLS, S. DAK.—The Sioux Falls Light & Power Co, George Blackman, Pres., will spend about $110[illegible] for improvements, including an auxiliary steam plant.

TYNDALL, S. DAK.—Bids are asked until 7 p. m., April 14, by the [illegible] for electric light plant and changes [illegible] improvements to the water-works system. The work will consist in the main [illegible] a 65 and 85-HP. gas producer plant, 40 [illegible] 55-KW generator, pole line and wiring, [illegible]k building, power pump and motor [illegible] 1,900 ft. of 8-in. water main. O. Clauss[illegible] St. Paul, Minn., is Engr.

KANSAS CITY, MO.—The Ka[illegible]s Gas & Electric Co., with a capital of [illegible]1,400,000, has been organized here to buy [illegible] gas and electric light plants in a number [illegible] Kansas towns. The company has issued [illegible],000,000 of bonds, of which $1,600,000 have been sold to purchase the plants in Wichita and Pittsburg. Negotiations for the acquisition of other plants are under way. The directors are: H. P. Wright, J. F. Dow[illegible] A. C. Jobes, John F. Prescott and F. [illegible] Crowell, of Kansas City; E. L. Copeland, [illegible] Topeka; J. O. Davidson, L. O. Ripley a[illegible] Charles H. Smyth, of Wichita; M. C. [illegible]lley, of Pittsburg, and A. C. Stich, of Independence.

COLUMBIA, MO.—See item under Water Supply—Irrigation.

TEXAS CITY, TEX.—It is announced by A. B. Wolvin, of Duluth, Minn., Pres. Texas City Co., which is establishing extensive port facilities at Texas City, that the capacity of its power plant here will be doubled in order to supply power for the industries of the town and nearby places. The plant is at present equipped with machinery capable of generating 500 KW. The company is erecting several large warehouses upon the docks here and is equipping them with electric overhead cranes for the handling of freight. Electric cranes are also being installed upon the docks for loading and unloading vessels. Electric motors, using the third-rail system, will handle the cars in the yards and upon the docks.

PITTSBURG, OKLA.—The Pittsburg Water & Light Co. has been incorporated to furnish water and light for the mines and washer plant of the McAlester Edwards Coal Co. and for city purposes. South of city is an elevation in the hills, which makes it possible to create a 40-ft. head of water, which will be about 90 ft. above the town. This will give a gravity system. It will require between 10,000 and 15,000 cu. yds. of earth to make the dam, and the work will be done by contract, which will be closed by April 15.

WALTER, OKLA.—Contract for the construction of the electric light plant has been awarded by the city to E. R. KERBY, of Lawton, Okla. The O'Neil Engineering Co., of Dallas, Tex., has charge of the work.

MEDFORD, OKLA.—The citizens on March 8 voted to issue $18,000 of bonds for the construction of an electric light plant. O'Bannon & Foster, of Blackwell, Okla., are Engrs.

FORT LUPTON, COLO.—Tiffany & Co., of Denver, have been granted a franchise to construct and operate an electric light plant and water-works system here. Under the terms of the franchise the plants are to be completed within 90 days.

DENVER, COLO.—See item under Water Supply—Irrigation.

WASHOUGAL, WASH.—Officials of the North Bank R. R. have decided to organize a company to be known as the Clarke County Development Co., with the object of completing the large power plant on the Washougal River and constructing a street car-line from Mount Pleasant landing through Washougal and Camas to Vancouver.

PORTLAND, ORE.—The Portland Railway, Light & Power Co. is increasing the capacity of its hydroelectric plant and has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for a new alternator.

FRESNO, CAL.—The San Joaquin Light & Power Co., a subsidiary of the Pacific Light & Power Co., of Los Angeles, announced on March 22 that it will at once begin the expenditure of $1,250,000 on a plant on the north fork of the San Joaquin River, near Fresno, where a minor plant has been in operation several weeks. The larger plant will develop 22,000 HP. and supply light and energy to Fresno, Madera, Fowler, Hanford, Selma and as far south as Coalinga and the adjacent oil fields. The immediate work involves the construction of a dam 125 ft. high, behind which will form a deep lake 16 miles in circumference and a water supply to run the large turbines.

FORT BRAGG, CAL.—The Union Lumber Co. has awarded contract for a 1,000-KW. Westinghouse-Parsons turbo-generator set, together with switchboard, exciter and condenser, to HUNT, MIRK & CO., of San Francisco, Cal. The equipment will be installed in the company's plant here.

LOS ANGELES, CAL.—Plans are being considered for the illumination of Seventh St., from Boyle Ave. on the east to Hoover St. on the west, over four miles. It is proposed to widen the thoroughfare and install about 4,200 lamps. Estimated cost, $50,000.

LOS ANGELES, CAL.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., April 9, for furnishing and installing lighting fixtures in the post-office and court-house here.

OROVILLE, CAL.—Water locations for two new electric power plants have been filed for record here. One was for 1,200 ins. of the water of Chico Creek, near Cohassett, by F. [illegible] Mann of that place, who proposes to generate electricity for commercial purposes; the other, for 3,000 ins., by A. E. Smith, president of the Butte-Magalia Consolidated Mining Co., who proposes to generate power on the west branch of Feather River for the company's use.

SAN FRANCISCO, CAL. — Plans for a gas distributing system for the residence districts of the city have been completed by the San Francisco Gas & Electric Co. and work on the installation will be commenced within two months. The new mains will be of [illegible]-in. steel pipe and will tap a 5,000,000-cu. ft. tank to be erected at the Potrero [illegible] at Humboldt and Michigan Sts. The new pipe line will be seven miles long, following an entirely new gas route through the city. The pipe will follow along Army St. to Shotwell St., to 15th St. West in [illegible] St., to Dolores St. north in Dolores St. to Duboce Ave. in Duboce Ave., to Webster St. and thence to a 2,000,000-cu. ft. holder at Bay and Buchanan Sts. known as the North Beach Station. The purpose of this system is to do away with the passage of the gas through the business district mains before reaching the residence part of the city. The holder at Humboldt and Michigan Sts. will be 200 ft. high and 195 ft. in diameter and will cost over $300,000. The work of laying the pipe line will cost $200,000. The districts to be affected are Richmond, Parkside, Sunset, part of the Mission and Ingleside. Estimated total cost, about $5[illegible],000. E. C. Jones, San Francisco, is Ch. Gas Engr.

SAN FRANCISCO, CAL.—The Municipal Light & Power Co. has awarded contract to HUNT, [illegible]RK & CO., of San Francisco, for an additional 1,000-KW. Westinghouse-Parsons turbo-generator to be installed in its plant in the Claus Spreckels Bldg. annex on Stevenson St. Contracts were also placed with the same firm for Stirling boilers, condensers and cooling plant.

REDONDO BEACH, CAL.—J. G. WHITE & CO., 43 Exchange St., New York, have contract for erecting reinforced-concrete building at Redondo Beach for the Pacific Light & Power Co., 112 × 125 ft., to be used for housing additional engines and machinery.

MESA, ARIZ.—We are officially advised that contract for the construction of a new gas plant for the South Side Gas Co. has been awarded to E. N. MACGILLIVRAY, of Los Angeles, Cal. H. L. Chandler is Mgr.

VALLEYFIELD, QUE.—Bids will be received until April 9 by E. A. Robert, Managing Dir., Canadian Light & Power Co., Montreal, for rock and earth excavation in the Beauharnais Canal, between Valleyfield and Timothee, and also for intake works at Valleyfield, including cofferdam and culverts.

LONDON, ONT.—Contracts have been awarded by the Water Commissioners for electrical equipment to cost $50,556. The CANADIAN GENERAL ELECTRIC CO. secured contract for work amounting to $25,745 and the CANADIAN WESTINGHOUSE CO. for work to cost $24,811.

PRINCE RUPERT, B. C.—Bids are asked until noon, May 3, by Thomas Dunn, Chn., Electric Light Com., for boilers, engines, condensers, pumps and piping, together with electrical apparatus. James Milne is Consulting Engr., Loo Bldg., Vancouver, B. C.

BRIDGES.

(** denotes that this work is advertised in Engineering News.*)

PALMER, MASS.—The citizens voted on March 28, it is reported, $18,000 for constructing a new stone bridge over the Chicopee River at Three Rivers.

NEW YORK, N. Y.—See item under Streets and Roads.

MAURICETON, N. J.—Bids will be received by the Mauriceton Bridge Committee, representing the Board of Chosen Freeholders of Cumberland County, Bridgeton, N. J., until 2 p. m., April 12, for materials and labor necessary to reconstruct the Mauriceton bridge, spanning Maurice River at Mauriceton, Cumberland County.

RUTHERFORD, N. J.—Bids were received by a Committee of the Board of Chosen Freeholders at the office of the Clerk, Hackensack, on April 1, for the construction of a new bridge over the Erie R. R. tracks at Montross Ave., Rutherford. The bids follow: Frank R. Long, $15,997; T. M. McLeod Co., $14,750; Snare & Triest Co., 143 Liberty St., New York, $13,650; George M. Brewster Construction Co., $19,300; T. W. Abbott Co., $17,560.

EASTON, PA.—Bids are asked until 10 a. m., April 22, by the Northampton County Commissioners for cleaning, scraping and painting various bridges. Young & Reese are County Engrs.

*KEMPTON, PA.—The Commissioners of Berks County have awarded contract to the FERRO-CONCRETE CO., of Harrisburg, Pa., for the construction of a reinforced-concrete bridge here at $5,960.

LAKE, MD.—Bids are asked until April 16 by Allegany and Mineral Counties for the construction of a steel and concrete bridge over the Potomac River between Lake and Piedmont, W. Va. Douglas P Le Fevre, Cumberland, Md., is Roads Engr.

THACKER, W. VA.—The Thacker Coal Mining Co. will construct a 375-ft. span across Tug River to have a 5-ft. sidewalk.

RIVER FALLS, N. C.—River Falls Cotton Mills Co., J. W. Menefee, Pres., Graham, N. C., will build a concrete steel highway bridge. Hydraulic Properties Co., 60 Broadway, New York, are Engrs-in-Charge.

NEWBERRY, S. C.—Bids will be received until April 15 by the Board of County Commissioners, Newberry, for constructing a steel or iron bridge and approaches across Saluda River, between Bonknight's Ferry and Kempson's Ferry. Estimated cost, $3,500. H. C. Holloway is Clk.

ATLANTA, GA.—The Atlanta & Northeastern R. R. Co., J. L. Murphy, Secy., Candler Bldg., Atlanta, will construct three bridges, one over the Chattahoochie River, 1,200 ft. long; and over Peachtree and Big Creek, each 100 ft. long.

MONTGOMERY, ALA.—Bids will be received until noon, April 11, by J. S. Pinckard, 17 South Perry St., for the construction of a concrete bridge over Central of Georgia Ry. tracks on Madison Ave. Estimated cost, $10,000.

MORRISTOWN, TENN.—Hamblen County has awarded contract to MORELAND & MOSES, of Knoxville, Tenn., for constructing eight reinforced-concrete bridges.

COLUMBUS, OHIO.—Contracts have been awarded by the Baltimore & Ohio R. R. Co. and the Director of Public Service for the construction of viaducts over the Baltimore & Ohio crossings of McKinley Ave., Broad St., Sullivan Ave., Town St. and Central Ave. Work will be started soon. The original estimates for the work were $422,399, but the lowest bids amounted to $325,000. DRAKE & STRATTON, of Pittsburg, Pa., were awarded contract for excavation and masonry; the AMERICAN BRIDGE CO., for bridge work. Additional expense of $47,000 in the construction of sewers and curbing will be authorized. The contracts for this work will be awarded later. D. E. Sullivan & Sons and J. T. Adams, of Columbus, were bidders on excavation and masonry.

JEFFERSON, OHIO.—Bids will be received at the office of the Board of County Commissioners of Ashtabula County, Jefferson, until 1 p. m., April 19, for the construction of concrete abutments of a bridge over Rock Creek, on the East and West Center Road in Rome Township, per Report No. 132, in accordance with the form of contract, plans and specifications furnished by J. S. Matson, County Surv. A. V. Hillyer is Clk.

FREMONT, OHIO.—Bids are asked by Sandusky County Commissioners until 11 a. m., April 16, for erection complete of a steel rivet truss superstructure and kreodone block floor system for the Muskalonge bridge. George W. Bloom is County Audr.

COSHOCTON, OHIO.—The County Commissioners on March 28 awarded contract to GEORGE J. BOCK & SON for the erection of the bridge near Newcomerstown. The bridge will be 265 ft. long.

MOUNT VERNON, OHIO.—Bids are asked by Irwin Young, County Audr., until 1 p. m., April 23, for the substructure of a bridge in College Township, known as Balcom bridge. Separate bids for the superstructure will be received at the same time.

LISBON, OHIO.—The County Commissioners on March 29 awarded contract for bridge No. 1025 in Middleton Township to the CONCRETE CONSTRUCTION CO., of Canton, Ohio, at $3,550.

NORTH CHICAGO, ILL.—Bids are asked by the Bureau of Navigation, Navy Dept., Washington, D. C., until noon, May 14, for a concrete arch bridge at U. S. Naval Training Station, Great Lakes, North Chicago.

PEORIA, ILL.—Profiles and drawings of the new steel bridge designed by the Commissioners of Public Works have been prepared. The design is for a bridge of the under truss, deck plan, steel construction type. It is 2,914 ft. in length, extending from the alley between Washington and Adams Sts. on Bridge St., passing above the street car and interurban tracks on Washington St., the Rock Island, T. P. & W. and P. & P. U. tracks on Water St., and above the T. P. & W. tracks at the far end of the bridge. The plan is for but two piers in the river beyond the present bascule draw, instead of five as in some other designs. They are to go to bedrock. The bridge is planned to be 35 ft. in width, with a roadway of 25 ft., with 5-ft. footpaths on both sides. Estimated cost, $244,000.

MILWAUKEE, WIS.—The city is planning the erection of three steel bridges, the aggregate cost of which will be nearly $500,000. Buffalo St. bridge, $200,000; Wright St. bridge, $150,000; Oneida St. bridge, $140,000.

DULUTH, MINN.—A new pick-up bridge will be erected on the coal dock of the Zenith Furnace Co., West Duluth. Contracts have been let as follows: Piling and pockets for bridge, to BARNETT & RECORD CO.; dredging, to GREAT LAKES DREDGE & DOCK CO.; cable and necessary equipment for machinery, to MEAD, MORRISON & CO.; for furnishing bridge and erecting it, to AMERICAN BRIDGE CO. Estimated total cost, $175,000.

COHASSET, MINN.—Bids are asked by E. W. Windsor, Town Clk., for the construction of a steel and concrete bridge here across the Mississippi River until 2 p. m., May 3. Estimated cost, $5,000.

TOPEKA, KAN.—Contract for constructing the extension to the Melan arch bridge on the South Side has been awarded by the City Council to A. D. JOHNSON, of Kansas City, at $32,350.

NELSON, NEB.—Bids are asked until noon, April 19, by L. L. Shattuck, County Clk., for construction, repairs and completion of all wood and steel bridges to be built or repaired in Nuckolls County during the year commencing April 19, 1910.

GRAND FORKS, N. DAK.—JARDINE & ANDERSON, of Fargo, N. Dak., were awarded contract on March 22 by the County Commissioners for the construction of steel bridges throughout the county. Estimated cost, $35,000.

CASCADE, MONT. — The MIDLAND BRIDGE CO. has been awarded contract, at $11,000, for repairing the Missouri River bridge here and for moving the bridge over Muddy Creek at Vaughn.

MARYVILLE, MO.—Bids are asked until April 8, by George S. Miller, County Engr., for the construction of eight new bridges and repairing four old ones in Nodaway County.

CARTHAGE, MO.—The Missouri Pacific Ry., M. L. Byers, Ch. Engr., St. Louis, Mo., will rebuild the bridge across Spring River.

POCAHONTAS, ARK.—The St. Louis & San Francisco R. R., M. C. Byers, Ch. Engr., St. Louis, Mo., will construct a bridge across the Black River. Estimated cost, $100,000.

CORPUS CHRISTI, TEX.—Nueces and San Patricio Counties have awarded contract to C. O. HORTON, Austin, Tex., for constructing a steel bridge across Nueces River.

COALGATE, OKLA.—The Coal County Commissioners will ask for bids for the construction of 24 steel bridges. Plans and specifications are on file in the office of E. T. Brown, City Engr.

RIDGWAY, COLO.—Bids will be received until April 9 by Charles W. Comstock, State Engr., Denver, for constructing a steel bridge across the Uncompaghre River, near the town of Ridgway, Ouray County.

REDCLIFF, COLO.—Charles W. Comstock, State Engr., Denver, will receive bids until April 9 for constructing a steel bridge across the Grande River in Eagle County.

DILLON, COLO.—Bids will be received until April 16 by Charles W. Comstock, State Engr., Denver, for constructing a steel bridge across the Blue River, about 1½ miles north of Dillion, Summit County.

TACOMA, WASH.—The RAYMOND CONCRETE PILE CO., 98 West St., New York, and Chicago, Ill., has been awarded contract for placing concrete piles in the foundations of the Putallup viaduct, Tacoma. The Northwest Bridge Co. are the general contractors. Wilbur Raleigh is City Engr.

VISALIA, CAL.—The city trustees have passed resolutions providing for a bridge across Mill Creek. Estimated cost, $13,000.

EAST ZORRA (Hickson post-office), ONT.—Bids will be received by James Anderson, Clk., until 3 p. m., April 11, for the erection of a steel bridge and concrete abutments therefor, in the Township of East Zorra, Oxford County, bridge to be 70 ft. long over all and 14 ft. clear width, with concrete reinforced floor, and guaranteed to carry a moving load of 15 tons. Bidders to furnish plan and short specification of proposed work and may offer for the whole work, or for erected bridge, or for abutments, or for floor only.

BOBEAYGEON, ONT.—Bids will be received by J. R. McNeillie, County Clk., Victoria, until April 13, for the erection of two steel bridge spans of 60 ft. each over all for a bridge in two parts separated by a fill of about 100 ft., across Little Bob River, near the village of Bobeaygeon. The spans are to be of sufficient width to provide a clear 14 ft. roadway, unobstructed, to be constructed for the reception of a concrete floor, and in all respects to conform to the Ontario Government specifications, 1909. The bidders are to include the supply of wire bonding for the concrete floor, of corrugated steel and of approved strength, and are to furnish with their bids plans of the spans, with all requisite details, and certified by the Department of Public Works of Ontario.

BUILDINGS.

(** denotes that this work is advertised in Engineering News.*)

SPRINGFIELD, MASS.—It is stated that a hotel is to be built here, to be of the suburban type, modeled after the Hotel Frontenac at Quebec, and is to be located on the Spear property at Pecowsic, at the corner of Long Hill St. and the boulevard, across the trolley track from the Barney estate. With the cottages planned in addition, a bridge across the boulevard to the river bank, and system of terraces, it will represent an expenditure of approximately $1,000,000. The hotel is to be 200 ft. long and 100 ft. broad, with 250 rooms and 150 private baths. The dining hall, will be Bohemian in design. There will be a roof garden cafe, private dining rooms, and a number of large assembly halls. Another distinctive feature of the plans is a provision for nine houses in conjunction with the hotel. There will be a fireproof automobile garage, to accommodate 50 cars, and there will be a lodge for the accommodation of the employes of the hotel and chauffeurs. The grounds will be laid out with provision for tennis courts and other sports. The hotel building will be fireproof throughout. The material used in construction will be artificial stone around a steel frame. The floors will be of reinforced concrete. Mr. Cobb has located an office in the Court Square theatre building in connection with Chapin & Chapin, real estate operators, Springfield. Albert Winslow Cobb, 309 Washington St., Boston, Mass., is Arch.

SPRINGFIELD, MASS.—The plans for the theater which Sullivan Bros. are to build on the site of the Y. M. C. A. building will be completed and estimates will be taken at once. The plans also include a 3-story brick front in front of the theater. The entrance to the theater will be through an arcade in the block. There will be one store on each side of the arcade. The front of the building on the two upper stories will be used for offices, and the rest of the space will be given over to a dance hall, which will be about 60 ft. square and two stories in height. There will be a balcony in the dance hall which will be used for moving pictures when the hall is not in use for assembly purposes. The work on the block cannot be started until after July 1, as the Y. M. C. A. will not vacate the building until that date. It probably will be late in the fall before the building is completed. The work on the theater can be started as soon as the contract is let, so that it will be ready before the block. It is estimated that the theater and block will cost about $75,000.

OSWEGO, N. Y.—Bids are asked by Dr. Andrew S. Draper, Comr. of Education, Capitol, Albany, N. Y., until 3 p. m., April 26, for construction complete of buildings for the State Normal School at Oswego, N. Y., including heating, plumbing, electric work and gas piping. F. B. Ware is State Arch.

PERRYSBURG, N. Y.—John H. Coxhead, Arch., 928 Ellicott Sq., Buffalo, is preparing plans for a tuberculosis hospital to be built at Perrysburg, N. Y., by the city of Buffalo, at an estimated cost of $150,000. Dr. John H. Pryor is Pres. Board of Trustees, 26 Linwood Ave.

BUFFALO, N. Y.—The city of Buffalo will erect a 2-story police station and stable, 46 × 60 ft., at Genesee St. and Bailey Ave. There will be a cell-room 33 × 38 ft., and the stable will be 42 × 64 ft. Construction will be of stone, brick and structural iron. Francis G. Ward, Comr. of Public Works, City Hall, will receive bids.

WARD'S ISLAND (New York post-office), N. Y.—Bids are asked by the State Commission in Lunacy until 3 p. m., April 29, for additional medical quarters, including construction, heating, plumbing and electric work at the Manhattan State Hospital, Ward's Island, N. Y., and for the construction of water tower and piping for fire protection at the Willard State Hospital at Willard, N. Y. F. B. Ware is State Arch., The Capitol, Albany. T. E. McGarr is Secy. of Comn.

*FORT H. G. WRIGHT (New London, Conn., post-office), N. Y.—Bids are asked by Capt. F. T. Arnold, Constr. Q. M., New London, until 10 a. m., May 6, for the construction, plumbing, heating, electric wiring and fixtures of one double and two single company officers' quarters, one guard-house, one ordnance shop, one coal shed and one wagon shed at Fort H. G. Wright, N. Y.

NEW YORK, N. Y.—We are officially advised that a 12-story loft and store building, 62.9 × 98.9 ft., is to be erected at 150 to 154 West 22d St., from designs by Browne & Almiroty, 3 West 29th St., Archs., for the Marmac Construction Co., 316 West 30th St. The cost will be $225,000. The owner is taking all bids.

Charles E. Birge, 29 West 34th St., is preparing plans for a 9-story fireproof apartment house, 42 × 85 ft., to be erected at 158 to 164 West 58th St. The owners are forming a company, of which Ranald H. Macdonald, 29 West 34th St., will be a member. Mr. Macdonald will handle the general contract. The materials used will be light brick, limestone and terra cotta. Estimated cost, about $200,000.

NEW YORK, N. Y.—We are officially advised that the general contract for the Metropole Hotel, to be constructed at Nos. 147 to 151 West 43d St., by George Considine, has been awarded to the KEYSTONE CONSTRUCTION CO., 28 East 85th St. The building will have six stories and will be fireproof. It will contain a bar, grill room and restaurant. In all there will be 75 rooms. G. F. Pelham, 507 Fifth Ave., prepared the plans. Cost, $250,000. Noted on March 24.

Plans have been filed for a 6-story studio apartment house to be erected at 132 and 132½ East 19th St., for Joseph B. Thomas, of Simsburg, Conn., as owner, replacing two old-fashioned four-story dwelling houses. It will be finished in brick, covered with cement plaster and decorated with mullion bays of leaded glass and a roof of tile, the design being by Frederick J. Sterner, Arch., 164 Fifth Ave. The building is to cost $50,000.

Henry Irving Cobb, Arch., 42 Broadway, has filed plans for a 12-story loft and store building to be erected for August Belmont as owner on the site of his old home, 44 and 46 East 34th St. It will front 53.2 ft. in 34th St. and 24½ ft. in 33d St. The facades will be of cut limestone and terra cotta, finished with a cornice of Gothic pinnacle pattern, carrying two flagstaffs. The facade will be decorated at various points with small carved figures and ornamental trimmings. The building will cost $225,000.

NEW YORK, N. Y.—We are officially advised that the contract for razing the 19-story Gillender Building at the northwest corner of Wall and Nassau Sts., which was purchased December last by the Bankers' Trust Co., 20 Wall St., has been awarded to JACOB VOLK, 1 Nassau St. and 56 Beaver St. The present structure is of steel construction. On the site an office building will be erected from plans by Trowbridge & Livingston, 527 Fifth Ave. The contract has been let to MARC EIDLITZ & SON, 489 Fifth Ave.

Bids are asked by the Park Board until 3 p. m., April 14, for furnishing and delivering pink bond Tennessee marble for the American Museum of Natural History, Boro. of Manhattan.

NEW YORK, N. Y.—Bids were received as follows on April 4 by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, for the general construction, etc., of new Public School No. 167, on Eastern Parkway, Schenectady Ave. and Lincoln Pl., Boro. of Brooklyn: J. W. Walsh Construction Co., $284,440; R. E. Heningham, 1 Madison Ave., $279,480; William J. Moran, Inc., $286,027; G. H. Peckworth, 415 Hudson St., $275,878; P. Gallagher, 1181 Broadway, $299,247; Thomas McKown, Inc., $278,748; George Vassar's Son & Co., 1170 Broadway, $283,000; Bettaford-Dickenson Co., $276,924; George Hilderbrand, 38 Park Row, $297,643; Geo. F. Driscoll, $273,978; P. J. Brennan & Son, 624 Madison Ave., $278,000; Keenan & Corrigan, $277,700; Peter Cleary, $266,900; T. A. Clark Co., $266,700; John Auer & Son, $279,950; John Kennedy & Son, 103 Park Row, $277,977.

TROY, N. Y.—Plans have been received for a library and administration building for the Rensselaer Polytechnic Institute, which will be erected this summer by the Pittsburg Alumni of the institution. The building was designed by William G. Wilkins, Westinghouse Bldg., Pittsburg. The building will cost $125,000, and will be 60 ft. wide by 100 ft. long. The main floor will contain a reading room, the stack room of the library and the administration offices. The second floor is to be occupied by the geological department, and the third floor will have a large hall, to be used for a

lecture room. The structure is to be built of Harvard brick, with sandstone trimming, and will conform in architecture to other buildings on the campus.

BEAVER FALLS, PA.—The School Board has decided to erect a $60,000 High School building on its property on 17th St., and is receiving plans.

ERIE, PA.—We are officially advised that the following bids were received on March 22 for the removal of the present Public School Building No. 7, and the erection of a new building in its place: Baldwin Bros., Erie, $139,723; Henry Shenk Co., Erie, $100,490; Constable Bros. Co., Erie, $99,683; KIRSCHNER BROS., Erie, $92,300 (awarded contract). W. J. Flynn is Secy Bd.; J. W. Yard & Son, 808 State St., Erie, are Archs. Other contracts are pending. Noted last week.

PHILADELPHIA, PA.—Contracts have been awarded by the Philadelphia & Reading Ry. Co. for the erection of the Columbia Ave. passenger station to IRVING & WEIGHTON, at their approximate bid of $172,676, and to FRED. A. HAVENS & CO., 845 North 19th St., for a tool house at Norris St., at their bid of $4,102. The passenger station will have a frontage of 170 ft. on the south side of Columbia Ave., 150 ft. on the west side of Ninth St., and 150 ft. on the east side of Hutchinson St. Columbia Ave. will be depressed and pass below the new elevated tracks. The exterior will be of gray brick, with granite base, Indiana limestone and terra cotta trimmings. The passages to trains and stairways to platforms will be lined throughout with white enameled brick. The two platforms are to be of cement, 800 ft. long, and protected by steel shelters of the umbrella type, 540 ft. long. The waiting room will be 52 ft. wide, 79 ft. long and 35 ft. high, and will be lighted by large windows with figured plate glass in cast-iron frames. The station will contain a ticket office, smoking room, barber shop, women's retiring room, telegraph and telephone service, newsstand and baggage facilities. William Hunter, Philadelphia, is Ch. Engr.

BALTIMORE, MD.—A permit has been granted to the Hampton Court Co. to begin the erection of the Hampton Court Apartment house at 307 to 311 Dolphin St. It will cost $45,000.

A theater for vaudeville and moving pictures will be built by Joseph Brodie on the site of his present moving picture theater next to his store, 1120 Light St. It will be a fireproof structure of brick, steel and concrete, with a seating capacity of about 1,000 persons. A glass arcade entrance will be constructed. The building will be L-shaped, and will occupy a lot 70 × 178 ft.

DANVILLE, VA.—The contract for the construction of an extension to the post-office at Danville, Va., has been awarded by James Knox Taylor, Supervising Arch. of the Treasury Dept., Washington, D. C., to R. H. RICHARDSON & SON, of Hampton, Va., at $45,244. A complete list of bids was given on March 24.

WHEELING, W. VA.—The management of the Baltimore & Ohio R. R. Co., has authorized $300,000 for the construction of a freight depot and terminals at Wheeling, W. Va., A. M. Kinsman, Baltimore, Md., is Ch. Engr.

FORT SCEVERN, GA.—Bids are asked by the Constructing Q. M., until 11 a. m., April 25, for construction, plumbing and electric wiring of one double set civilian employes' quarters.

HATTIESBURG, MISS.—Bids were received as follows on April 4 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Hattiesburg, Miss.: Newport Contracting & Engineering Co., Newport News, Va., $69,380; David Getaz Sons & Co., Knoxville, Tenn., $71,000; King Lumber Co., Charlottesville, Va., $82,720; American Engineering & Construction Co., New Orleans, La., $84,950; D. J. Phipps, Newport News, Va., $76,422; C. M. Rubush, Meridian, Miss., $88,975. Time, May 1, 1911.

NEW ORLEANS, LA.—The city of New Orleans intends to build an art museum, to cost about $125,000, and architects are invited to submit plans. These will be received until July 1 at the office of P. A. Lelong, 518 Iberville St., New Orleans. Architects are invited to write for instructions. A copy of which is on file at the office of Engineering News, New York, for reference.

*SHREVEPORT, LA.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., May 16, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring and standard clock system) of the U. S. post-office and court-house at Shreveport, La.

CLEVELAND, TENN.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., May 6, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Cleveland.

LEXINGTON, KY.—The following bids were received on March 25 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of an extension to the U. S. public building at Lexington, Ky.: Frank Corbin, Lexington, Ky., $79,318; Fancher & Driscoll, Canastota, N. Y., $67,638; George B. Long, Lexington, Ky., $71,900; John G. Unkefer, Minerva, Ohio, $72,000; M. P. Wells, Philadelphia, Pa., $71,170; D. J. Phipps, Newport News, Va., $72,981; George Becking, Chattanooga, Tenn., $81,051; The Alfred Struck Co., Louisville, Ky., $74,300.

ALLIANCE, OHIO.—Bids are asked by the Board of Education until noon, April 12, for erecting a High School building, 60 × 200 ft., to cost about $70,000. The building will be fireproof, of brick, terra-cotta and reinforced concrete construction. Richards, McCarty & Bulford, The Ruggery, Columbus, Ohio, are Archs.

NEWARK, OHIO.—Bids are asked until 3 p. m., May 7, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction, complete (including plumbing, gas piping, heating apparatus and electric conduits and wiring) of the U. S. post-office at Newark.

WEST ALEXANDRIA, OHIO.—Howard & Marrian, Archs., Capitol Trust Bldg., Columbus, Ohio, have been commissioned to prepare plans and specifications for a 16-room school building to be erected at West Alexandria, Ohio. The building will contain an auditorium and will be of fireproof construction. It is estimated to cost $60,000.

COLUMBUS, OHIO.—The Board of Education will readvertise for bids for the West Broad St. and the Heyl Ave. school buildings, upon which all bids were refused recently.

The owners of the Columbus "Citizen," a newspaper, will erect a business block near the corner of Third and Gay Sts. upon a lot recently purchased. Plans have been prepared by Briggs & Nelson, Archs., Rose Bldg., Cleveland, Ohio, and bids will be invited soon.

COLUMBUS, OHIO.—A $40,000 addition to Mercy Hospital, located on South High St., will be erected during the summer.

The appropriation bill of the Ohio general assembly which is now pending in the House of Representatives calls for $376,000 for improvements at the Ohio penitentiary; $50,000 for the Columbus State hospital; $225,000 for the canals of the state; $50,000 for the Mansfield Reformatory for buildings; $350,000 for the Lima State hospital for additions; and smaller sums for the Toledo State hospital; Hospital for Epileptics at Gallapolis, Massillon State hospital and other public institutions.

DELAWARE, OHIO.—At a meeting of the Board of Education with the Ohio Building Inspector and J. M. Marriott, Arch., Clinton Bank Bldg., it was decided that the High School building, to be rebuilt, could be made only two stories in height. The cost of the work is estimated at $55,000.

CLEVELAND, OHIO.—Bids will be received until noon, April 14, by H. F. Jordan, Clerk of the Board of Education of East Cleveland Village School District, 605 Euclid Ave., for furnishing of all labor and material necessary to erect and complete two 2-story brick school buildings and one 2-story brick addition to the Prospect St. School in the village of East Cleveland. Searles, Hirsch & Gavin, Schofield Bldg., Cleveland, are Archs.

The Retail Merchants Board of the Chamber of Commerce has pledged itself to undertake the erection of an interurban trolley station. Financing will probably be done by the merchants themselves, according to the Cleveland "Leader." The station probably will be in the Public Square. The probable cost is set by E. W. Moore, Electric Bldg., at $700,000. A committee of five will be appointed, with C. W. Burrows, Chn. There will be two members of the Retail Merchants' Board, one representative of the interurban lines, one representative of the Cleveland Railway Co., and one representative of the city.

The proposed $500,000 Y. M. C. A. building will be built on the site of the old Childs property at the southeast corner of Prospect Ave. and East 22d St. The trustees of the association have authorized purchase of the 161 × 282-ft. site for $135,000. R. E. Lewis is Secy. Plans for the new building will be drawn at once.

Announcement is made that the Lake Shore & Michigan Southern, Pennsylvania and the Cleveland, Cincinnati, Chicago & St Louis Ry. companies will proceed with the erection of a union passenger station at Cleveland, to cost $2,250,000. The station is to be located on the lake front, terminating the group plan of public buildings. For the building site the railroads ask for 35¼ acres of land, owned by the city. The union station is to be constructed of white stone and will be classic in design. It will be surmounted by a dome 120 ft. high, and large pillars will guard the entrance. It will cover a ground space of 456 × 156 ft. Samuel Rockwell, Cleveland, is Ch. Engr., L. S. & M. S. Ry. Co.

WILMINGTON, OHIO.—Plans have been completed by Howard & Marrian, Capitol Trust Bldg., Columbus, Ohio, for a 16-room school building for Wilmington, to cost about $75,000. The construction will be of reinforced concrete. Bids will be invited soon.

HAZLETON, IND.—The Trustee of Odd Fellows lodge have ordered plans on which to ask for bids for the erection of a 3-story brick building.

ORLEANS, IND.—Plans are being made for the erection of a high school building. Bids will be asked as soon as a site is agreed upon.

PERU, IND.—Bids were received as follows on March 30 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Peru, Ind.: C. Hoertz & Sons, Grand Rapids, Mich., $74,343; Conners Bros. Co., Lowell, Mass., $66,400; J. W. Milliken, Indianapolis, Ind., $69,568; M. P. Wells, Philadelphia, $66,719; R. S. Moore & Co., Danville, Ill., $67,270; Barnes Bros., Manchester, Va., $67,900; Bedford Stone & Construction Co., Traction Terminal Bldg., Indianapolis, Ind., $68,000; John Clifton & Son, Peru, Ind., $84,684; Ed. Henry, Sault Ste. Marie, Mich., $71,625; J. B. Goodall, Peru, Ind., $64,700; P. H. McCormack & Co., Peru, Ind., $62,415; Moore & Danner, Kokomo, Ind., $65,887.

BLOOMINGTON, IND.—The City Council has purchased a site on corner of Walnut and Fourth Sts. on which to erect a city hall. The structure will be of stone three stories high. Bids will be invited in a short time.

EVANSVILLE, IND.—Bids will be received by the Trustees of the Liederkranz-Maennerchor Society for the erection of a German house. Estimated cost, $90,000.

COVINGTON, IND.—Bids will be received by the School Board until April 20 for the construction of a 2-story brick school house with finished basement. E. J. Martin is Secy.

FRENCH LICK, IND.—Plans are being prepared on which bids will be asked by Thomas Taggart for the erection of an annex to the French Lick Hotel on the site of the building recently destroyed by fire.

INDIANAPOLIS, IND.—The Philoxenian Lodge Hall Association is preparing to ask for bids to construct a lodge home to cost $80,000. S. G. Bartel, A. W. Gray and Jesse Ebaugh are Trustees.

JEFFERSONVILLE, IND.—The School Board has awarded a contract to HEINZMAN BROS., of Indianapolis, to build a high school building at $75,000.

DETROIT, MICH.—William S. Joy & Co., Archs., 602 Furgenson Bldg., Detroit, have let the carpentry contract to FRED. LAW, JR., 335 Breckenbridge Ave., for a new 3-story and basement apartment house containing 14 apartments for Geo. M. Blanchard, 45 Sibley St.

Caille & Kunsky, 93 Gratiot Ave., Detroit, have incorporated with a capital of $160,000. They will erect a theater at Monroe and Farmer Sts., Detroit.

Malcolmson & Higginbothom, Archs., 404-5 Moffat Bldg., Detroit, are preparing plans and specifications for a 2-story and basement sanitarium, 300 × 60 ft., for the Detroit Sanitarium Co., Frank B. Leland, Pres., Majestic Bldg. The architects will take bids about April 10.

R. C. Gies, Arch., 510 Wayne County Bank Bldg., Detroit, has let the following contracts for proposed 2-story store building, 75 × 67 ft., for William Schecter, 465 Concord Ave., Detroit: Structural iron work, to DE CROSPET IRON WORKS, 345 Monroe Ave.; masonry, to OTTO L. MISCH, Penobscot Bldg.; carpentry, to LOUIS SCHMIDT, 4 Frontenac Boulevard; composition roof, to HOWIE ROOFING CO., 370 Fourth Ave.; plastering, to H. L. BARBER, 425 Pennsylvania Ave.

Albert Kahn and E. Wilby, Archs., 800 Trussed Concrete Bldg., Detroit, have let the general contract for the Detroit & Cleveland Navigation Co., A. A. Schantz, Gen. Mgr., foot of Wayne St., to A. J. JOHNSON, Pontiac, Mich., for a 3-story building, 100 × 50 ft.

Spier, Rohns & Gehrke, 1325 Chamber of Commerce Bldg., Detroit, have let the following contracts for the Zion Presbyterian Church, P. R. De Carlo, Pastor, 495 Congress St.: Masonry, to C. KULOW, 957 Field Ave.; carpentry, to BOOTH & CREBER, 32 Elizabeth St. E.; slate roofing, to AMERICAN ROOFING CO., 34 Gratiot Ave.; plumbing, to MAX KLEIN, 292 Gratiot Ave.

DETROIT, MICH.—C. F. J. Barnes, Tolsma Bldg., Detroit, is preparing plans and specifications for a 4-story warehouse, 32 × 80 ft., for M. Srere, 165 Montcalm St. E. Stock brick, Bedford cut stone, structural iron and electric fixtures will be used in construction.

Smith, Hinchman & Grylls, Archs., 710 Washington Arcade Bldg., Detroit, have been commissioned by the Central Methodist Society, Rev. F. D. Leete, Pastor, 519 Second Ave., Detroit, to prepare plans and specifications for enlarging and remodeling the church at Woodward and Adams Aves. The materials to be used include brick, Bedford stone, composition roof and structural iron.

M. R. Burrowes, Arch., Trussed Concrete Bldg., Detroit, has prepared plans and specifications for a 3-story and basement apartment building, 180 × 49 ft., containing 21 apartments. Press and stock brick, Bedford cut stone, composition roof, stone cornice, structural iron, mosaic tiling and electric fixtures will be used.

QUINCY, ILL.—The following bids were received by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., on March 28, for the construction, including plumbing, heating and standard clock system of the U. S. post-office at Quincy, Ill.: August Ohm, Terre Haute, Ind., $82,852; W. J. McAlpine, Dixon, Ill., $84,900; Northern Construction Co., Milwaukee, Wis., $78,900; Paul Reisins & Sons, Milwaukee, Wis., $77,900; C. Hoertz & Son, Grand Rapids, Mich., $89,343; Harmen Bros., Williamsport, Pa., $78,874; F. W. Meuker, Sotmr & Lewis Co., Quincy, Ill., $83,082.

CHICAGO, ILL.—A building to be devoted to mercantile purposes is to be erected on the land at 474 and 476 Wabash Ave., 41¼ × 100 ft., which has been sold by A. W. Rhodes, of Los Angeles, Cal., to Alfred Cowles, Sarah Frances Cowles Stewart and William H. Cowles for $65,000. The present structure is a 4-story building, with store and flats.

*APPLETON, WIS.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., May 12, for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Appleton, Wis.

MILWAUKEE, WIS.—The Central Police Station Building Commission, consisting of Chief J. T. Janssen, W. Carbyes Zimmerman, Chicago, and Prof. C. R. Henderson, University of Chicago, have completed the program of plans and specifications for the proposed police station, and the Board of Public Works is ready to advertise for bids. Cost, $225,000.

At a recent meeting of the City Council ordinances were passed providing for a bond issue of $100,000 for an isolation hospital to take the place of the present building, and an issue of $75,000 for the erection of a public natatorium in the Third Ward.

Plans are being made by Harry Harris, Fred. Landeck and others interested in the Gayety Theater for the erection of a building to cost about $160,000.

The congregation of St. Mark's Episcopal Church has decided to build a church to cost $40,000. The building will be of stone and will be located at H[illegible]t Ave. and Belleview Pl. S. A. L. T[illegible]son, F. C. Best, George Streetor, Wal[illegible] Greg, J. S. Maxwell, W. C. Middleton, [illegible] Grossman and J. P. Hummel are the [illegible]lding Committee.

IOWA CITY, IOWA.—The [illegible]ract for the proposed physics building fo[illegible] State University of Iowa, has been aw[illegible] to JAMES ROWSON & SON, of Newto[illegible]wa. Their bid was $186,000.

DES MOINES, IOWA.—Pr[illegible]ot, Bird & Rawson, Archs., Flynn Bld[illegible] have completed plans for a 3-story [illegible]and apartment building, 66 × 132 ft. [illegible]ich H. H. Cogswell will have erected [illegible]ummer at Seventh and High Sts., at a [illegible]of $55,000.

The Des Moines Fire Insu[illegible]e Co. has secured at site, 66 × 132 ft. [illegible] West Seventh and Pleasant Sts., for [illegible]erection of an office building to cost $20[illegible]

The Central State Bank has [illegible]ured a site at 315 West Fifth St. for th[illegible]tion of a 6-story building, estimated to [illegible] $200,000.

*OTTUMWA, IOWA.—Bids a[illegible]sked until 3 p. m., May 13, by James [illegible]x Taylor, Superv. Arch., Treasury Dept[illegible] Washington, D. C., for the construction (in[illegible]ng plumbing, gas piping, heating appar[illegible]s, electric conduits and wiring and stand[illegible] clock system), of the U. S. post-offic[illegible]nd court-house at Ottumwa, Iowa.

NEW MUNICH, MINN.—HER[illegible]N JEUB, 2027 Crystal Lake Ave., Min[illegible]polis, has been awarded the contract for [illegible] erection of the Catholic church at N[illegible] Munich, Minn., for $45,000. The chur[illegible] will have brick exterior, stone trimmed, h[illegible]dwood interior finish and flooors, steam h[illegible]t, electric wiring, art glass windows, pila[illegible]s, pillars, stucco work. A. Dohmen, of M[illegible]waukee, is Arch.

MINNEAPOLIS, MINN.—The Gale-Monroe Co., 304 Washington Ave. North, will erect a 5-story and basement warehouse building. It will be of mill construction with brick exterior, hardwood floors, plumbing, steam heat, electric wiring. The cost, including the site, will be between $125,000 and $150,000. The company has three sites under consideration and has not yet decided upon one.

The J. & W. A. ELLIOTT CO., Lumber Exchange, Minneapolis, has the general contract for a 6-story reinforced-concrete building on Hennepin Ave., adjoining the Holmes Hotel, between Eighth and Ninth Sts. It will have pressed brick exterior, steam heat, etc. Cost, $70,000. F. G. McMillan is owner.

The J. & W. A. ELLIOTT CO., Lumber Exchange, has been awarded the general contract for the Elliott Memorial Hospital, which is to be erected on the campus of the State University, according to plans drawn by William M. Kenyon, Metropolitan Life Bldg., Minneapolis. The successful bid was $110,000. This does not include the contracts for plumbing, heating, ventilation, the ornamental iron, marble and tile work and electric wiring, which will be let later.

ST. PAUL, MINN.—C. H. Johnston, 715 Manhattan Bldg., city, has been chosen architect for the proposed administration building for the Wilder Charity, which will be built at Fifth and Washington Sts. Cost, $100,000.

WINONA, MINN.—Bids are asked by the State Board of Control, Charles Halvorson, Chn., St. Paul, until noon, April 18, for the construction of a pressed brick and cut stone ladies' dormitory, to be built at the State Normal School, at Winona, Minn. It will be 3 stories high, 42 × 165 ft., of reinforced-concrete fireproof construction. C. H. Johnston, Manhattan Bldg., St. Paul, is Arch. Cost, $75,000.

FREMONT, NEB.—All bids recently received by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Fremont, Neb., have been rejected as in excess of the appropriation.

GREAT FALLS, MONT.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., May 10, for the construction (including plumbing, gas piping, heating and ventilating apparatus, electric conduits and wiring and standard clock system) of the U. S. post-office and court-house at Great Falls, Mont.

FORT WORTH, TEX.—We are officially advised that the contract for the Majestic Theater and hotel has been awarded by A. & L. August to H. L. STEVENS & CO., of Fort Worth, Tex. Cost, $300,000.

DENVER, COLO.—A permit has been issued to the Metropolitan Realty Co., composed of Merritt W. and George W. Gano and William D. Downs, for the erection of a 6-story fireproof office building at the east corner of 16th St. and Court Pl., to cost $225,000. The structure will be of steel and concrete framework and will be built of sufficient strength to carry eight stories. The additional stories will be erected as soon as it appears that the business demand will justify it, and the complete cost will be $250,000. It will be exclusively for the use of physicians, surgeons and dentists, and will be fitted with the conveniences required for this class of tenants. There will be an assembly room and a physicians' library will be included. The contract for the steel work has been let to W. J. PATTERSON, of Denver, and the other contracts are being let separately. Construction will begin at once, and the building will be completed early next year. George H. Williamson is Arch.

BELLINGHAM, WASH. — Blackwell & Baker, Archs., will prepare plans for an armory building for the National Guard, at Elk and Pine Sts., estimated to cost $75,000.

TACOMA, WASH.—The Chicago, Milwaukee & Puget Sound Ry. Co. has enlarged the present depot holdings by the purchase from the Northern Pacific Ry. Co. of five lots on 26th and A Sts. in Block 7514, and two lots on the corner of Pacific Ave. and 26th St., occupied by the Tacoma Steam Laundry in Block 7513. This acquisition

gives the [illegible]mpany two complete blocks bounded [illegible] he west by Pacific Ave., on the east [illegible] A St. and on the north and south by [illegible] and 26th Sts. Plans for the depot in T[illegible]ma are being prepared by D. H. Burnha[illegible] Co., Railway Exchange, Chicago.

SEATTL[illegible] WASH.—Work has been started on the [illegible]undation for the 5-story hotel and store [illegible]ilding to be erected by the American [illegible]rtgage & Guarantee Co. at Eighth A[illegible] and West Lake Boulevard, at a cost of [illegible] $50,000. It will have steam heat. Th[illegible] walls will be of concrete with wood fra[illegible] interior. Bresemann & Durfee, Central B[illegible], are Archs.

The Y[illegible] Investment Co., 601 Third Ave., wi[illegible] rect a 6-story concrete brick store and [illegible]ce building, to cost $200,000.

SEATT[illegible] WASH.—Plans for the Scottish Rite Cat[illegible]ral to be erected at a cost of $250,000 [illegible] the triangular piece of property at the in[illegible]section of Broadway and Harvard Av[illegible], have been completed by Frank Allen, w[illegible] was director of the works of the Alaska-Y[illegible]on-Pacific Exposition. The Building [illegible]mmittee comprises E. B. Hussey, R. J. Fi[illegible], N. H. Latimer, Edmund Bowden and [illegible]alph Stacy.

FAIRF[illegible]LD, CAL.—The Board of Supervisors of [illegible]olano County has voted to accept the gene[illegible] plans of E. C. Hemmings, 244 Kearny S[illegible], San Francisco, Cal., and W. A. Jones, 7[illegible] York St., Vallejo, for the proposed $2[illegible]000 court-house to be located at Fairfield. Work on the structure probably will be commenced by June 1. The completed plans will be finished May 1 and bids will be advertised for immediately. The building is to be constructed entirely of granite on Greek Ionic lines of architecture. It will be fireproof and the frame will be of steel and the casings of metal. The feature of the exterior is ten stone columns, 3½ ft. in diameter and 35 ft. high. When complete the structure will cover a site 144 × 70 ft., and will be two stories high with a basement. The interior will be finished in white marble. Besides the various officials' quarters the building will contain two court rooms.

SAN FRANCISCO, CAL.—The Knights of Columbus have purchased a lot, 68.7 × 137.6 ft. on the north side of Golden Gate Ave., between Jones and Leavenworth Sts. They have decided to erect a Class A building costing at least $150,000, and have selected Smith O'Brien, Arch. The building will have an auditorium on the first floor and a banquet hall in the basement, which may be used in connection with the auditorium or with the lodge rooms on the upper floors. The upper floors will contain a lodge room for the order, and, in addition, other lodge rooms for rental purposes. Club rooms will also be provided for the members of the order. The exterior will be finished in stone, pressed brick and terra cotta and will be of an imposing character, five stories in height.

Plans have been completed by Washington Miller, Arch., for a hotel building to be erected at the northeast corner of Ninth and Mission Sts., upon a lot 75 × 100 ft. The cost of the structure will be about $80,000. The building will be four stories in height with basement and of Class C construction. Its first floor will be arranged for a hotel lobby and stores and the upper floors in rooms to the number of 114. Red pressed brick will be used in the exterior, with white terra-cotta ornament and white wide mortar joints. The first story exterior will be of ornamental iron, with a marquise entrance to the lobby. The arrangement of the ground floor plan is such that the hotel lobby is in direct connection with a cafe, restaurant and barber shop, and the remaining stores, if desired. The rooms will have steam heat and hot and cold water service.

SAN FRANCISCO, CAL.—A permit has been issued to A. Sattel to erect a 7-story concrete loft building in the north line of Sutter St., 107 ft. east of Grant Ave., at a cost of $52,000.

J. E. Kraft & Sons, Archs., Phelan Bldg., are preparing plans for the Mount Zion Hospital buildings, to be erected in Scott St., between Post and Sutter Sts., at an estimated cost of $250,000. This institution will be of the Class A type of construction.

It is stated that St. Mary's Hospital, to be constructed on the block bounded by Stanyan, Shrader, Hayes and Grove Sts., will cost about $350,000. It will be Class A. Architects are receiving bids for the construction of a group of buildings.

The Fitel Phillips Co. has secured a permit to erect a 3-story hammam baths structure in the south line of Ellis St., 82 ft. west of Mason St., at an estimated cost of $44,500.

Ella H. Arnold has a permit to erect a 5-story brick apartment building at the northeast corner of Van Ness and Willow Aves., at a cost of $65,000.

Through the agency of Abrahamson Bros. & Co. the southwest corner of Sixth and Stevenson Sts. has been purchased by Morris Brown. On this holding a building will be erected to cost about $100,000. The building will contain stores and 100 rooms. It will be six stories high and will be mainly for hotel use.

Plans have been completed for a 7-story and high basement brick hotel building, to be erected at the southwest corner of Sutter and Taylor Sts. for Dr. Beverly MacMonagle, at a cost of $50,000. The architect is N. W. Sexton, Chronicle Bldg. The structure will be in the colonial style, with an exterior of red pressed brick and white marble trimmings. At the sixth story, extending around both fronts, there will be an iron balcony. The structure will contain 70 rooms connected with bath rooms, a reception hall on the first floor and a billiard room in the basement.

The Regents of the University of California have received tentative plans for a hotel to stand on the land owned by the university in the north line of Sutter St., between Kearny and Montgomery Sts. The lot is irregular, with a frontage of 105 ft. in Sutter St., an average depth of 150 ft. and a frontage of 55 ft. in Hardy Pl., and an additional frontage of 102 ft. in Trinity St. Competition has been invited for plans. C. H. Barrett, Arch., 417 Montgomery St., has submitted plans providing for a structure that will cover the land. This would be seven stories high, of Class B construction, of reinforced concrete with fireproof floors, and would contain six stories and 355 rooms. The estimated cost is about $395,000.

LOS ANGELES, CAL.—The RICHARDS-NEUSTADT CONSTRUCTION CO., Wright & Callender Bldg., Los Angeles, Cal., has been awarded contract to erect a 4-story reinforced-concrete store and warehouse building on South Los Angeles St., for Eban Skinner. Cost, $72,000.

VALLEJO, CAL.—Bids are asked by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., May 14, for constructing an ordnance store house at the U. S. Navy Yard, Mare Island, Cal. Specifications are on file at the office of Engineering News, New York.

SACRAMENTO, CAL.—The following bids were received by James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C., on March 23, for constructing an extension to the U. S post-office at Sacramento, Cal.: The Matthews Construction Co., Sacramento, Cal., $142,559; Hoyt Bros., Santa Rosa, Cal., $132,889; Ambrose B. Stannard, St. James Bldg., New York, $128,000; McGillifray Construction Co., Sacramento, Cal., $130.447; Pacific Construction Co., San Francisco, Cal., $151,935; Northwestern Construction Co., Kearney, Neb., $136,497; Siller Bros., Sacramento, Cal., $134,044.

The Sacramento County court-house will be under construction in April. The site is now being cleared of the old court-house. A quarter-block of brick business structures has been razed to make way for the new building. The site is the south half of the block bounded by H, I, Sixth and Seventh Sts., and will face I St. The north half of the block is occupied by the new county jail, now nearly completed. The court-house will cost approximately $500,000. The first story is to be of granite, on a foundation of concrete. The second and third stories are to be of yellow pressed brick and terra cotta trimmings. The grounds will be raised and terraced over the entire block surrounding the building. The building was designed by R. A. Herold, Bryte Bldg., Sacramento.

BAKERSFIELD, CAL.—A court-house for Kern County is to be erected at a cost of $350,000. It will have an exterior of white Manti stone from Utah. The building will stand in the center of two blocks of land in the city, the main entrance facing a street between the blocks. The approach will be over a flight of stone steps, where space will be left for statuary. The length of the court-house will be 240 ft., and its width 74 ft. There will be three stories and a basement. F. H. Meyers is Arch., Humboldt Bank Bldg., San Francisco.

MONTREAL, QUE.—Apart from the railway construction programme announced some time ago as a result of the conferences between Sir Thomas Shaughnessy, Pres., and William Whyte, Vice-Pres., the Canadian Pacific Ry. Co. has an extensive building program for the summer in the matter of new stations and terminal structures of various kinds, according to the "Montreal Gazette." There will be three buildings at Calgary. At Regina there is to be a brick freight shed 450 ft. long. At Moose Jaw an addition to the present freight shed of 200 ft. will be built. About 20 stations of the standard design will be erected in addition to others of larger character, at more important centers, such as Red Deer, Banff and Laggan. The company will erect a Y. M. C. A. building at Cranbrooke, B. C., which is to cost $26,000.

WATER-SUPPLY—IRRIGATION.

(** denotes that this work is advertised in Engineering News.*)

*NEWTON, MASS.—Plans and specifications are on file at the office of Engineering News, New York, for constructing a pressure tunnel and laying water mains, etc., for the western aqueduct supply main in Newton. Length of pressure tunnel is about 1,900 ft. and 6 ft. 4 ins. in diameter inside the concrete lining. Work consists of laying about 500 ft. of 80-in. steel pipe line covered with concrete on the outside and lined with mortar, and laying about 930 ft. of 60-in. c.-i. pipe line for the Weston aqueduct supply main in Newton. The work also includes about 950 cu. yds. of top soil excavation, 910 cu. yds. of top soil surfacing, 5,530 cu. yds. of earth excavation and 1,700 cu. yds. of rock excavation in open trench, refilling trenches and building embankments with 8,900 cu. yds. of material, crushing 7,500 cu. yds. of stone, 2,300 cu. yds. of concrete masonry in tunnel and 500 cu. yds. in open trench, 50 cu. yds. of brick masonry and 200 cu. yds. of cement grout in tunnel. Bids are asked by the Metropolitan Water and Sewer Board, Boston, Mass., until April 15. Henry H. Sprague is Chn.

FALL RIVER, MASS.—Bids will be received until April 22 by the Watuppa Water Board, Fall River, James J. Kirby, Clk., for furnishing a 6,000,000-gallon high duty pumping engine.

WALLINGFORD, CONN.—We are officially advised that the Freemen of the Borough on March 29 voted to appropriate not more than $11,500 for laying about 9,000 ft. of 6 and 8-in. water mains. The pipe lead and valves have already been purchased. Bids for the work will be asked soon. J. H. Child is Supt. and Engr.

NEW YORK, N. Y.—Bids are asked by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, until 2 p. m., April 20, for furnishing, delivering and laying high pressure fire service mains and appurtenances in the Gowanus and South Brooklyn Districts, Boro. Brooklyn.

Bids will be received by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, until April 13, for furnishing and delivering c.-i. pipe, special castings and valve box castings, Boro. Brooklyn.

NIAGARA FALLS, N. Y.—The Board of Water Commissioners on March 25 rejected all bids for a filtration plant, which is to be a part of the new water system, and decided to ask new bids. The board has been endeavoring to arrive at some solution of the problem and stood committed to the proposition offered by the Norwood Engineering Co., of Florence, Mass., whose estimate for the work was $249,800, while it had before it a proposition from the Fred T. Ley Co., of Philadelphia, for $224,000. It will be about April 18 before the contract can now be awarded.

*WILLARD, N. Y.—Bids for water tower and piping for fire protection at the Willard State Hospital, Willard, will be received by the State Commission in Lunacy until 3 p. m., April 20. Drawings and specifications may be consulted and blank forms of proposal obtained at the Willard State Hospital, and at the office of the State Architect. Complete sets of plans and specifications will be furnished prospective bidders upon reasonable notice to, and in the discretion of, Franklin B. Ware, State Arch., Albany. T. E. McGarr is Secy. Comn.

*YOUNGSTOWN, N. Y.—Bids will be received by the Board of Trustees until 8 p. m., April 20, for furnishing the materials and constructing a system of water-works. There will be required approximately the following material: 3¾ miles of 8.6 and 4-in. c.-i. pipe; 36 fire hydrants; 36 gate valves; two gasoline engines and triplex power pumps; brick pumping station, standpipe, steel pressure filters, etc. J. F. Witmer is Engr., Buffalo, N. Y.

POLK, PA.—Bids will be received until April 12 by the Board of Trustees of the State Institution for Feeble-Minded of Western Pennsylvania, located at Polk, for furnishing material and installing an extension to the water supply system for the institution, to consist of about 6,000 ft. of c.-i. pipe, reinforced impounding reservoir, etc. Emery C. Read is Engr., Galena Bldg., Franklin, Pa.

BALTIMORE, MD.—Fred P. Stearns, of Boston, Mass., and John R. Freeman, of Providence, R. I., Consulting Engrs., have submitted their report to J. Barry Mahool, Mayor, on the enlargement and improvement of the water supply. They recommended the Gunpowder Valley as the best available location for the new reservoir and urge the purification of the water by sand filtration and coagulation and settling plans. Estimated total cost of site, including reservoir, etc., $6,630,000.

Daniel B. Banks, Engr. Fire Board, has completed plans, it is reported, for the construction of the pumping station for the high-pressure fire pipe line on South St.

WASHINGTON, D. C.—Bids were received as follows on March 30 by the Commissioners of the District of Columbia for furnishing 12-in. c.-i. pipe: Glamorgan Pipe & Foundry Co., 71 Broadway, New York, $26.88; Lynchburg Foundry Co., Lynchburg, $26.10.

PARKERSBURG, W. VA.—The city has adopted the plan submitted by L. E. Smith, of Parkersburg, for a system of natural filtration to be located on the Ohio River about 4,000 ft. above the present pumping station. The plant will comprise a system of perforated pipes laid horizontally in the bed of the river in bar and directly connected to intake at pumping station, guaranteed to pump water at rate of 170,000 gallons per hour. Estimated cost, $100,612.

TARBORO, N. C.—The city proposes to extend the water and sewer system into the annexed district and make other improvements. Estimated cost, $20,000.

CONCORD, N. C.—Gilbert C. White, Engr., Durham, N. C., has prepared plans for water-works. The plan is to install automatic pumps and pump water from Cold Water Creek to pumping station, where 1,000,000 gallons will be stored in settling basin. The water is to pass from the settling basin through filterers into present clear-water reservoir, from which it is to be pumped into city pipes. Two filterers are to be installed with capacity of 500,000 gallons daily. Estimated cost, $40,000.

FLORENCE, S. C.—Bids will be received by the Commissioners of Public Works, Willoam Hoffmeyer, Chn., until April 18 for furnishing material and constructing extensions to water-works, including c.-i. pipe, hydrants, valves, air compressor or deep well pump.

GREEN COVE SPRINGS, FLA.—See item under Light and Power Plants.

BREAUX BRIDGE, LA.—Bids are asked by the city until May 3 for material required in the construction of water-works. A. C. Jones is Engr., Opelousas, La.; John Comeau is City Clk.

*JOHNSON CITY, TENN.—Bids will be received by the Mayor and Board of Aldermen until May 5 for the construction of a water supply system. For details see advertisement in this issue. W. M. Dunlap is City Engr.

OBION, TENN.—The city has voted $30,000 of bonds for the construction of water and electric-light plants.

BOONEVILLE, IND.—The Water-works Trustees will receive bids until April 23 for the construction of a water-works lake and pipe line therefrom. Augustus Schrieber is Secy.

DETROIT, MICH.—Bids will be received by Benjamin F. Guiney, Secy. Bd. Water Comrs., until April 12 for furnishing about 250 tons of small special castings and about 20 tons of large special castings.

KANKAKEE, ILL.—Bids will be received until April 11 by the State Board of Administration, Springfield, Frank D. Whipp, Fiscal Superv., for constructing a steel tower and tank at the Kankakee State Hospital, Kankakee.

GRAND RAPIDS, WIS.—Bids will be received until 2 p. m., April 8, by C. E. Boles, City Clk., for reinforced-concrete reservoir 50 ft. in diameter and 15 ft. deep. Plans are on file at the City Clerk's office, at the office of W. G. Kirchoffer, Engr., Madison, Wis., and office of F. W. Dodge Co., Monadnock Block, Chicago, Ill. W. G. Kirchoffer is Engr.

MILWAUKEE, WIS.—The Board of Public Works has awarded contract for furnishing c.-i. pipe and special castings, to be used for a feeder main that will be extended through the south side this year, to the U. S. CAST-IRON PIPE & FOUNDRY CO., 71 Broadway, New York, at $70,000. The ROBERT ROM CO., Milwaukee, has been awarded the contract for furnishing the valves and gates to be used in the same work at $4,095.

MASON CITY, IOWA.—Bids for the construction of a water-works system will be received by the Board of Supervisors of Cerro Gordo County, at the office of A. S. Clark, County Audr., Mason City, until 2.30 p. m., April 14.

RENVILLE, MINN.—Bids were opened by the City Council on March 14 for the construction of a steel water tower. Contract has been awarded to ROWAT & BENNETT.

MINNEAPOLIS, MINN.—We are officially advised that bids were received as follows on March 25 for corporation cocks: National Mfg. & Supply Co., 50 cts. each; James B. Clow & Sons, 52 cts.; H. Mueller Mfg. Co., 57 cts. Henry N. Knott is City Clk.

SYRACUSE, KAN.—See item under Light and Power Plants.

FORT ROBINSON, NEB.—Bids are asked until 11 a. m., April 11, by Capt. M. H. Barnum, Constructing Q. M., U. S. A., for furnishing necessary labor and material for the installation of new boilers, new pump, feed water purification system, feed pump, etc., at Fort Robinson.

FAIRBURY, NEB.—We are officially advised that plans and estimates are being prepared by Burns & McDonnell, Consulting Engrs., Scarritt Bldg., Kansas City, Mo., for complete water-works and light plant, for which $135,000 bond election has been called. C. H. Denney is Chn. Com.

LEMMON, S. DAK.—The citizens have voted to issue $25,000 of bonds for the construction of water-works.

TYNDALL, S. DAK.—See item under Light and Power Plants.

COLUMBIA, MO.—Prof. H. B. Shaw, of Missouri University, and H. H. Humphrey, of St. Louis, have been retained by the city to report on the enlargement of the water and light plant. They recommend improvements to cost $140,000.

CENTRALIA, MO.—The following contracts in connection with the water and sewer systems for this city have been awarded: To AMERICAN PIPE CO., St. Louis, Mo., at $11,819, for furnishing the c.-i. pipe necessary; EUREKA FIRE HOSE CO., New York, at $0.90 per ft. for furnishing 1,500 ft. of hose, including three 10-ft. fire nozzles and three reels; DES MOINES IRON & BRIDGE CO., at $4,500, for the 70,000-gallon water tank and 125-ft. steel tower; RENSSALER CO., Troy, N. Y., for furnishing hydrants of the Corey patents.

BONHAM, TEX.—The city has voted $15,000 of bonds for water-works improvements.

MEDFORD, OKLA.—Bids are asked by the city until April 13 for material, machinery and supplies for the extension of the water-works system. The work includes 12,000 ft. of 4 and 6-in. mains. O'Bannon & Foster, Joplin, Mo., are Engrs.

YUKON, OKLA.—We are officially advised that plans and specifications are being prepared for water-works and sewers at Yukon.

FORT LUPTON, COLO.—See item under Light and Power Plants.

MONTROSE, COLO.—The Secretary of the Interior has authorized the construction by force account on the Uncompahgre irrigation project, Colorado, of the necessary distribution system of canals on the west side of the Uncompahgre River. The work in this connection will be scattered over a considerable area and consists principally of the construction of small ditches and structures necessary for the operation thereof.

COLORADO SPRINGS, COLO.—Bids have been opened by the Costilla Estates Development Co., 56 Bank Bldg., Colorado Springs, Frank E. Brooks, Pres., for the following: Sanchez dam, about 500,000 cu. yds. earthwork; Sanchez dike, about 250,000 cu. yds. earthwork; Culebra-Sanchez canal, about 250,000 cu. yds. earthwork, together with necessary controlling works, and about 15,000 cu. yds. of rock excavation. The contract was awarded on March 25 to WOGAN-WILCOXON CONSTRUCTION CO., 1722 Wazee St., Denver. Cost, $500,000. O. V. P. Stout, of Lincoln, Neb., is Engr.

DENVER, COLO.—Contract for the construction of the Stove Prairie reservoir, about 40 miles northeast of Greeley, which is to form a part of the Laramie-Poudre irrigation project, will be let in about two weeks. The project will impound 1,500,000,000 cu. ft. of water and the plans include the construction of three power plants, which will furnish electricity in the northern part of Colorado and possibly for the street railway system in Denver. William G. Evans, Pres. Denver City Tramway Co., is interested.

NORTH YAKIMA, WASH.—The Secretary of the Interior is asking for bids for the excavation of about 40 miles of sub-laterals, Tiston unit of the Yakima irrigation project, Washington. These ditches, the capacity of which is less than 10 sec.-ft., will be used for the watering of the so-called unit of the Tieton project, embracing 8,200 acres of land. The work has been divided in seven schedules of approximately equal value. Estimated cost of the entire work, about $15,000. Bids will be received at the office of the Project Engineer, North Yakima, until April 22.

The Secretary of the Interior has awarded contract to GEORGE COOKE & SONS, of Spokane, Wash., for the construction of

main laterals of the distribution system under the Cowiche-Yakima branch of the Tiston unit, Yakima irrigation project, Washington. This work consists of the construction of about 36 miles of ditch near Naches, Wash., and involves the excavation of about 385,000 cu. yds. of material. The contract price is $138,000.

SEATTLE, WASH.—Bids were received as follows on March 8 by the city for subdivision No. 5, Cedar River Water Supply System, No. 2: C. F. Graff, American Bank Bldg., Seattle, $113,963 (lock bar) and $113,527 (riveted); International Dredging Co., Seattle, $116,302 and $116,302; Jahn Contracting Co., Seattle, $116,715 and 118,715; HANS PEDERSON, Seattle, $105,809 (awarded contract) and $104,534; Sanfield & Ritchie, Seattle, $136,073 and $136,073. R. H. Thomson is City Engr.

SEATTLE, WASH.—The Board of Public Works has awarded contracts to the JAHN CONTRACTING CO., Seattle, for attaching fire hydrants to existing mains in Riverside Ave. and other streets, and for constructing sewers in Aurora Ave. and other streets at $12,991 and $5,491, respectively. R. H. Thomson is City Engr.

*HOOD RIVER, ORE.—Plans and specifications are on file at the office of Engineering News, New York, for the construction of a complete municipal water system for Hood River. Bids are asked until April 25. P. M. Morse is City Engr.

SAN FRANCISCO, CAL.—Contract for the construction of a pumping plant at the Presidio, San Francisco, has been awarded, it is reported, to the CONTINENTAL FIREPROOFING CO. at $16,860.

SANTA ANA, CAL.—The CRANE CO., of Los Angeles, has secured contract for about 300 pieces of 4-in. pipe at $33.50 per ton. Bids were opened on March 21.

THEODORE, UTAH.—On March 16 the consolidation of the two Blue Bench irrigation district canals was agreed upon, and one canal over the upper route will be built, carrying probably 180 cu. sec.-ft. to water the 15,000 acres of irrigable land in the two districts. Bonds for $150,000 of the Upper Blue Bench District and for $125,000 of the Blue Bench Irrigation District No. 15 will be sold to construct the ditch. Edward F. Harmston, of Roosevelt, will be Ch. Engr. of the consolidated ditch.

BOISE, IDAHO.—The Grand View Land & Irrigation Co. is building a pumping station at Mountain Home, Idaho. Contract for the machinery has been let to ALLIS-CHALMERS CO., Milwaukee, Wis., which consists of two 90-HP. single horizontal Francis turbines, operating under a head of 38 ft. of water, directly connected with two 10-in. double suction horizontal centrifugal pumps, delivering water against a head of 48 ft.

MONTREAL, QUE.—The Board of Control, Mayor J. J. Guerin, Chn., has decided to spend $10,000 in obtaining plans for a filtration system.

SASKATOON, SASK.—Bids will be received until 7.30 p. m., April 11 for labor necessary for laying water mains and sewer pipes, and furnishing certain materials. Plans, specifications, etc., may be seen at the office of George T. Clark, City Engr.

AGUASCALIENTES, MEX.—A contract has been entered into by the State of Aguascalientes and the COMPANIA BANCARIA DE FOMENTO Y BIENES BAICES DE MEXICO, S. A., for the installation of a new water-works system for the city of Aguascalientes. The company will construct a system whereby the water will be taken from springs situated above the city and by installing the necessary pumping machinery, filters and reservoirs will be able to supply Aguascalientes with an adequate supply of water. The pipe which will convey the water through the city will be of cast iron and large enough to supply a minimum of 50 gallons per day to each inhabitant. Of the various plans submitted for the works that of F. V. Lister, Engr., was the one approved by the government and will be that upon which the work will be done. The cost of the work will amount to about $1,000,000 which will be covered by an issue of state bonds. The purchase of these bonds have already been negotiated with the Banco Central Mexicano.

SEWERAGE.

(** denotes that this work is advertised in Engineering News.*)

*BRIDGEPORT, CONN.—Bids will be received by the Paving and Sewer Commission at the office of Bernard Keating, Secy., until 8 p. m., April 14, for brick sewer in Connecticut Ave., 36 × 54 ins., 8-in. shell, about 1,020 ft. in length, with manholes, basins and connections, and about 840 cu. yds. of rock excavation.

HARTFORD, CONN.—Bids for constructing about 3,800 ft. of brick or concrete sewer, 4 ft. 6 in., 4 ft. 3 in. and 3 ft. in diameter in the Homestead Ave. interceptor system will be received by the Board of Contract and Supply until 11 a. m., April 11. Plans and specifications with F. L. Ford, City Engr.

NEW BRIGHTON (S. I.), N. Y.—Bids were received as follows on March 29 by George Cromwell, Pres. Boro. Richmond, for (a) furnishing all the labor and materials required for construction of sewers and appurtenances at intersection of Broad St., Canal and Cedar Sts.; (b) in unnamed street, from Fray St. to Godron St.: E. A. Mathews, (a) $37,090, (b) $23,170; John E. Donovan, (a) $34,676, (b) $20,799; Joseph Johnson's Sons, West New Brighton, (a) $33,609, (b) $21,066; M. J. Drummond, (a) $38,412, (b) $22,341.

NEW YORK, N. Y.—We are officially advised that bids were received as follows on March 24 by Cyrus C. Miller, Pres. Boro. of the Bronx, for constructing sewers and appurtenances in West 178th St., between Harlem River and Sedgwick Ave., and in Burnside Ave., between Sedgwick Ave. and the existing sewer in Aqueduct Ave., with branches in Cedar Ave., between Sedgwick Ave. and the summit north of West 180th St.; in 177th St., between Cedar Ave. and the Putnam Division of the New York Central & Hudson River R. R.; in Loring Pl., between Burnside Ave. and West 180th St., and in Andrews Ave., between Burnside Ave. and West 180th St.: BRIGGS & McLAUGHLIN, 19 E. 130th St., $76,690 (awarded contract); C. W. Collins, 5189 Broadway, $78,574; Felix Gasparsinni, 147 South Seventh Ave., Mount Vernon, N. Y., $79,067; Stanton Construction Co., 762 E. 165th St., $80,918; W. J. Brennan, 1968 Clinton Ave., $85,623; F. V. Smith Construction Co., 125th St. and Lexington Ave., $106,346; Beaver Engineering & Construction Co., 149 Broadway, $108,091.

ALBANY, N. Y.—The plans of the city for alteration of the sewerage system, including the construction of a series of intercepting sewers, were filed with Dr. Eugene Porter, State Comr. of Health, on March 31. The plans provide for turning and extending the present Albany basin intercepting sewer, which now empties into the basin at Columbia St., so that it will discharge into the river at the end of the Columbia St. pier. It is also planned to connect a small sewer, now emptying into the river at Steuben St. with this intercepting sewer. The sewers now emptying into the river or basin at Maiden Lane, State St., Hudson Ave., Division St., Hamilton St., Hodge St. and Madison Ave., are to be connected with a new intercepting sewer that will enter the river at the foot of Madison Ave. Screening chambers will be constructed at the ends of the intercepting sewers. Walter Melius is City Engr.

ALBANY, N. Y.—Bids were opened on March 21 by the Board of Contract and Supply, Isidore Wachsman, Secy., for constructing a concrete sewer in Western Ave., and 12-in. vitrified stoneware pipe sewers in Manning Boulevard, Myrtle Ave. and Putnam St. Contract has been awarded to JOHN DOYLE, 14 James St., Albany, at $15,418. List of bidders noted on March 24.

AUDUBON, N. J.—We are officially advised that Robinson & Wagner, Consulting Engrs., 1 Madison Ave., New York, are preparing plans for sewers and sewage disposal for this town.

CHATHAM, N. J.—Bids will be received by the Borough Council until 3 p. m., April 23, for furnishing material and constructing about seven miles of vitrified pipe sewers, 8 to 15-in. diameter, with Y branches, manholes, flush tanks and other appurtenances. Clyde Potts, 30 Church St., New York, is Engr.

PASSAIC, N. J.—The Passaic County Board of Chosen Freeholders on March 30 awarded contract for installing a storm water drain in Main Ave., near the Weasel Brook, to FRANK PUGLIA, the lowest bidder, at $33,261 for lock-joint pipe.

*SOUTH AMBOY, N. J.—Bids were opened as follows on March 29 by the City Council for the construction of the sanitary sewer system: Collins & Gundrum, South Amboy, $43,044; John Quinlan, South Amboy, $42,790; Louis Jacques, Elizabeth, $41,846; Liddle & Pfeiffer, Perth Amboy, $40,544; D. Donlin, Bayonne, $40,197; McGovern Construction Co., Trenton, $39,894; J. McMann, Bound Brook, $38,807; Westmoreland Construction Co., Greensburg, Pa., $37,786; Martin Murray, Bayonne, $37,291; Henry Spinach, Waterbury, Conn., $37,229; Martin Hanson, Perth Amboy, $36,617; Patrick J. Monaghan, South Amboy, $32,041; Edward F. Saxton and J. S. Palmer, New York, $30,891; Rafferty & Weir, New York, $30,704; Johan Jensen, Perth Amboy, $29,893; A. H. Philpot, Red Bank, $28,118; E. M. Miller & Co., Bayonne, $25,872; CANTWELL CONSTRUCTION CO., Philadelphia, $24,374 (awarded contract). Joseph F. Fulton is City Clk.

BRADFORD, PA.—B. A. Wise, City Engr., has submitted to the Council plans for the sewage disposal plant and intercepting sewers. Estimated cost, $91,249. Noted on March 31.

SCRANTON, PA.—The city on March 28 awarded contract to the BENNETT-HUGGETT CO. for the construction of Section B of Sewer District 18, including 15,076 ft. of main pipe, at $3.05 per lin. ft. List of bidders noted on March 31.

EASTON, MD.—Ulysses G. Ross, Edwin G. Cover, Bertram E. Whitman and others have applied for a 40-year franchise to construct a sewer system with disposal plant.

ROANOKE, VA.—The city has voted $75,000 of bonds for sewer construction.

WEBSTER, W. VA.—The city has voted $20,000 of bonds for sewer construction and street paving.

REIDSVILLE, N. C.—The city will construct a sanitary sewer system, consisting of ten miles of vitrified pipe sewer, from 8 to 15 ins. diameter, three sewage pumping stations and a reduction tank. E. W. Myers is Engr., Greensboro, N. C.

TARBORO, N. C.—See item under Water Supply—Irrigation.

COLUMBIA, S. C.—The city has awarded contract, at $4,097, to WESTON & BROOKER, of Columbia, for the construction of a storm sewer in Taylor St.

ATTALLA, ALA.—We are officially advised that preliminary surveys have been started for a sewage disposal system for Attalla, the approximate cost of which will be $20,000. Bids will be called for when the estimate is made. Hill & Campbell are Engrs., Gadsden, Ala., and will be in charge of the work.

TUSCALOOSA, ALA.—The city has awarded contract to J. W. GURLEY & CO., Mobile, Ala., at about $20,000 for sewer construction here. W. N. Nichol is City Engr.

SEBRING, OHIO.—Bids will be received by the Village Council, Harry Jenkins, Clk., until April 20, for the construction of a sewage disposal plant. Holl & Starrett, of Canton, are Engrs.

NEWBURGH (Cleveland post-office), OHIO.—Bids were opened March 26 by the Board of Control, J. W. Shimek, Clk., for constructing a sewer and concrete culvert in Hulda Ave. from the plans of W. H. Evers Engineering Co., 237 The Arcade, Cleveland. Contract has been awarded to the WATER-WORKS CONSTRUCTION CO., of Cleveland, at $4,448.

NEW LEXINGTON, OHIO.—Bids will be received until April 9 by the Board of County Commissioners for furnishing material and constructing a sewer system, tunnels, floors, etc., in Perry County Infirmary. George T. Drake is County Clk.

COLUMBUS, OHIO.—Bids will be received until April 12 by the Board of Public Service, David A. Jones, Clk., for constructing sewers in Sheridan St., Park and Eureka Aves. and several alleys.

CINCINNATI, OHIO.—Bids are asked by the Director of Public Service until noon, April 27, for the construction of main and lateral sewers and drains, with their appurtenances, in ravine and right-of-way from the end of existing sewer at Boldface Creek and Garfield Ave. to the end of the existing sewer in Academy Ave., south of Eighth St. Plans, specifications and blank proposals can be obtained at the office of the Chief Engineer of the Department of Public Service.

COLUMBUS, OHIO.—See item under Streets and Roads.

LORAIN, OHIO.—Bids will be received by the Director of Public Service, until noon, April 16, for furnishing the necessary labor and materials for the construction of a storm water sewer in Colorado Ave., East Erie Ave., Connecticut Ave. and A St., according to the plans and specifications on file. L. B. Johnston is Clk.

EVANSVILLE, IND.—Bids are asked until 10 a. m., April 9, by the Board of Public Works for the construction of a sewer here. Gordon B. Allis is Clk.

*LAPORTE, IND.—Bids will be received by William F. Krueger, City Clk., until noon, April 11, for the construction of about three miles of reinforced concrete sewers.

DETROIT, MICH.—The Council Committee on Sewers on March 18 allowed appropriations for sewer work as follows: 23d St. sewer, $599,152; Mt. Elliott Ave. sewer, to relieve Milwaukee Junction District and Hamtranck, $368,277; Fairview sewer, extensions to Alter Road, $177,780; completion of the Fairview pumping station, $75,648. J. J. Haarer is Comr. Pub. Wks.

MT. MORRIS, ILL.—The Town Board of Trustees has passed an ordinance, providing for the construction of a sewer system here.

PLYMOUTH, WIS.—COCHEMS, EUL & NEBEL, of Sturgeon Bay, Wis., have been awarded contract for 23,000 ft. of sewer at Plymouth, at $16,000.

BURLINGTON, WIS.—HERMAN HOHENSEE, of Milwaukee, has been awarded contract for the sanitary sewers, storm sewers and water-works extensions, at $3,966.

DAVENPORT, IOWA.—P. CONNELLY has secured contract at 69 cts. per ft. for the construction of a sewer in South St., between Davis and Division Sts., and the HYDRAULIC CONCRETE CONSTRUCTION CO., at 93 cts. for the construction of a sewer in Christie St., from Eddy to Fulton Aves., and Fulton Ave., from Christie to Jersey Ridge Road.

CENTERVILLE, IOWA.—Bids will be received until April 11 by the City Council for furnishing material and constructing sanitary sewers of standard vitrified salt-glazed pipe, manholes and flush tanks. Thos. W. Meers is City Clk.

HAWARDEN, IOWA.—Bids will be received until May 2 by the city for the construction of a sewer system from the plans of K. C. Gaynor, of Sioux City. Estimated cost, $20,000.

PERRY, IOWA.—We are officially advised that the city will construct storm sewers soon. Charles Wilson is City Engr.

ALBERT LEA, MINN.—Bids are asked until April 15 by the city for 1,496 lin. ft. of 8-in. pipe sewers, 6 to 14 ft. deep; 298 lin. ft. of 12 in. × 22 in. double pipe sewers, 8 to 14 ft. deep; 320 lin. ft. of 12 in. × 20 in. double pipe sewers, 8' to 12 ft. deep; nine manholes; six catch basins. William Barneck is City Engr.

HUMBOLDT, KAN.—Bids will be received until April 11 by J. E. Wakefield, City Clk., for making a complete survey of the city for the purpose of putting in sewers. There are about 25 miles of streets in city.

Bids will be received until April 26 for the construction of the trunk sewer in District 9. Estimated cost, $24,000. J. H. Kinmeyer is City Clk.

TECUMSEH, NEB.—R. C. Gore, City Engr., has completed surveying the city for proposed sewerage mains and is preparing plans for construction.

ST. JOSEPH, MO.—The Board of Public Works has awarded the following sewer contracts: OSCAR SCHMIDT, for the construction of three sewers in Districts 109, 94 and 112; to E. F. MIGNERY, for a sewer in District 109; to D. B. KELLEY, for a sewer in District 94.

COMMERCE, TEX.—J. H. Wheatley, J. H. Rush and F. H. Kemp, all of Greenville, Tex., have a franchise for the construction of a sewer system.

*EL PASO, TEX.—The Public Works Engineering Co., Beck Bldg., Portland, Ore., has been retained by the city to prepare plans for a sewage disposal plant and a garbage incinerator. Fred P. Smith is Secy. company.

YUKON, OKLA.—See item under Water Supply—Irrigation.

GRAND JUNCTION, COLO.—George L. Crawford, City Engr., has completed plans and specifications for Sewer District No. 3 to include the eastern and northwestern portions of the city. Estimated cost, $35,000.

SEATTLE, WASH.—Bids will be received by C. B. Bagley, Secy. Bd. Pub. Wks., until 10 a. m., April 22, for the construction of Lake Washington District [illegible] the North Trunk sewer, in accordance [illegible] plans and specifications at the office [illegible] Board of Public Works.

SEATTLE, WASH.—See [illegible] under Water Supply—Irrigation.

*KLAMATH FALLS, ORE. [illegible] will be received by A. L. Leavitt, [illegible] Judge of the city of Klamath Falls, [illegible] office until 8 p. m., April 25, for the [illegible] construction of 16,700 ft. of sewer, sewer [illegible] ranging in size from 6 to 14 ins., ei[illegible] vitrified or cement. Separate bids will [illegible] received for sewer pipe; septic tank; [illegible] covers, laying sewer pipe, and syst[illegible] as a whole. Plans and specifications ma[illegible] examined at the office of Don J. Zum[illegible] City Engr.

PORTLAND, ORE.—The [illegible] proposes to construct sewers in the Pen[illegible] District. The work will be divided in[illegible] districts, and bids for District No. 1 [illegible] be received in May. Estimated cost of w[illegible] in this district, $155,000. Estimated tot[illegible] cost, $1,200,000. S. H. Cobb is Engr. [illegible] Sewers and Bridges.

PAQUET, GIEBISCH & JO[illegible] have secured the contract for build[illegible] the north branch sewer of the Brookly[illegible] District, at $247,030. The north branch s[illegible] will connect with the north branch o[illegible] Brooklyn sewer that extends out Clinton [illegible], and will supply south Sunnyside, South [illegible] Mount Tabor, part of Mount Tabor a[illegible] Waverly-Richmond with sewerage, [illegible] contract including the laterals. WI[illegible]AM LIND secured the contract for [illegible] building the Milwaukee sewer, at $20,000. The PORTLAND ENGINERING CO. secu[illegible] the contract for the Stephens Slough [illegible] district sewer, at $18,022.

SAN FRANCISCO, CAL.—Th[illegible] Board of Public Works received five bi[illegible] on March 23 for constructing the Sunset [illegible] sewer. The lowest bid was that of the Me[illegible]opolis Construction Co., at about $170,000.

SANDPOINT, IDAHO.—The [illegible] of the construction of the sewer syst[illegible] here has been estimated by Prof. H. N. Ogden, of Ithaca, N. Y., at $120,000.

DUNNVILLE, ONT.—Bids will be received by J. W. Holmes, Town Clk., until 8 p. m., April 19, for the following work: (a) for constructing sewage pumping station; (b) 3,000 ft. of w.-i. pipe and brass valves; (c) laying the above for compressed air line; (d) air compressors; (e) 400 manhole steps. Willis Chipman, C. E., Toronto, Ont., is Ch. Engr.

GARBAGE DISPOSAL.

JERSEY CITY, N. J.—The Street and Water Board on March 29 awarded contract for the removal of ashes and garbage from April 1 to Nov. 30 to HENRY BYRNE, at $28,000.

PITTSBURG, PA.—The city on March 28 awarded garbage and rubbish contracts. The AMERICAN REDUCTION CO. secured the old city contract, at $188,500. The ALLEGHENY GARBAGE CO. obtained the North Side contract, at $65,000.

CINCINNATI, OHIO.—The Board of Public Service on March 24 opened bids for oiling the streets. The CITIZENS' ROAD PRESERVING CO. was awarded contract at 4 12-16 cts.

STREETS AND ROADS.

(** denotes that this work is advertised in Engineering News.*)

HARTFORD, CONN.—Bids will be received at the office of the State Highway Commissioner, Capitol, until 2 p. m., April 11, for state road work as follows:

Town of Woodstock, 8,500 lin. ft. gravel on the Eastford Road, including two 20-in., three 24-in., one 15-in. and two 12-in. tile culverts. Also 1,300 lin. ft. gravel on the North Woodstock Road, including two 24-in. tile culverts. Plans and specifications with Dr. Joseph Spaulding, First Selectman, Woodstock.

Town of Tolland, 1,660 lin. ft. grading on the Tolland-West Willington Turnpike, including two 20-in., four 24-in., three 18-in. and three 15-in. tile culverts. Also 1,200 lin. ft. gravel on Sand Hill, including a 12-in. iron culvert. Plans and specifications at the Town Clerk's office, Tolland.

Town of Hampton, 9,300 lin. ft. grading on the Clark's Corner Road, including four 24-in. tile culverts. Plans and specifications with John H. Fitts, First Selectman, Hampton.

Bids will be received by the Board of Contract and Supply of the city of Hartford, at the Mayor's office, City Hall, until 11 a. m., April 11, for relaying about 7,500 sq. yds. of sheet asphalt pavement on the west side of Main St., from Wells St. to a point about 400 ft. south of Buckingham St. and on the east side of Main St., from Atheneum St. to Charter Oak Ave. In this connection, the railway company is to relay about 500 sq. yds. Bids are also asked for cutting back curb corners and renewing headers on Charter Oak Ave., Buckingham St., Capitol Ave., Linden Pl., Shelden, Arch and Wells Sts. Joseph Buhrs is Secy.; F. L. Ford is City Engr.

*BRIDGEPORT, CONN.—Bids will be received by the Paving and Sewer Commission of Bridgeport, Conn., at the office of Bernard Keating, Secy., Room 22, City Hall, until 8 p. m., April 14, for the following work in said city: Wood block paving in Elm St., from Main to Broad St, about 1,580 sq. yds.; brick paving in Broad St., from Fairfield Ave. to Elm St., about 695 sq. yds. M. F. McKenna, is City Engr.

NEW HAVEN, CONN.—Bids are asked by C. W. Kelly, City Engr., until 2 p. m., April 11, for grading Norton St.

*DUNKIRK, N. Y.—Bids are asked by the Common Council until 8 p. m., April 19, to resurface with asphalt West Fourth St., from Central Ave. to Brigham Road. The approximate amount of work to be done is 9,430 sq. yds. of asphalt pavement. R. H. Heppell is City Clerk; J. M. Hackett is City Engr.

NEW YORK, N. Y.—Bids are asked until 2 p. m., April 14, by Kingsley L. Martin, Comr. Bridges, for repairs to asphalt pavement on bridges over the Harlem River and in the Borough of Manhattan during the year 1910.

The following bids were received on March 31 by the President of the Borough of Brooklyn, for regulating and paving with granite pavement on a concrete foundation the roadway of Morgan Ave., from Metropolitan Ave. to Bennett St., and from Badel St. to Meeker Ave.; for regulating, grading, curbing and laying sidewalks on New Lots Road or avenue, from Hegeman Ave. to Snediker Ave.: Empire City Contracting Co., World Bldg., New York, $31,128; James Quinn Contracting Co., $32,722; Richard L. Russell, $34,63.., Matthew T. Maher, $31,580; Charles A. My..., $32,908; O'Grady Bros., 69 North Eighth St., Brooklyn, $34,219; Henry P. George, $32,852.

*ALBANY, N. Y.—The bids received by the State Highway Commission on April 4, for the construction of State highways, were:

Dryden-Cortland Road No. 683, Tompkins County, length 3.57 miles: JOSEPH McCORMICK, East Providence, R. I., $38,444 (awarded contract); Daniel L. Mott, Utica, N. Y., $48,000; Flood & Van Wert Co., Hudson Falls, N. Y., $43,000; Newport Construction Co., Newport, N. Y., $42,900; Chambers & Grady, Rochester, N. Y., $43,745; Morris Kantrowitz, Albany, N. Y., $42,000.

East Rushford-Gordonville Bridge Road No. 861, Allegany County, 4.68 miles: NORTHWESTERN CONSTRUCTION CO., Franklin, Pa., $43,017 (awarded contract).

East End Road No. 787, Otsego County, .47 miles: CHARLES E. TOWNSEND, Oneonta, N. Y., $5,700 (awarded contract); Clarence Aikenhead Co., Rochester, N. Y., $7,585; Delaware Construction Co., Sidney, N. Y., $7,300.

Spencer-Candor Road No. 845, Part 1, Tioga County, 4.05 miles: John Harrigan, Albany, N. Y., $37,500; Charles F. Jordan & Co., Albany, N. Y., $33,600; E. Whalen, Tonawanda, Pa., $35,187; F. F. Meckeh, Long Pond, Pa., $32,945.

Caton-Corning Road No. 850, Steuben County, 6.14 miles: NORTHWESTERN CONSTRUCTION CO., Franklin, Pa., $61,263 (awarded contract); John C. Bradley, Corning, N. Y., $67,850; Morris Kantrowitz, Albany, N. Y., $69,000.

Watkins-Montour Falls Road No. 5047, Schuyler County, 1.64 miles: McGUERY, McGUIGAN & BAUM CONSTRUCTION CO., Elmira, N. Y., (on Trinidad), $22,503 (awarded contract).

Lowman-Waverly Road No. 5048, Part 1, Chemung County, 2.50 miles: McGUERY, McGUIGAN & BAUM CONSTRUCTION CO., Elmira, N. Y., (on Bermudez), $34,050 (awarded contract); John Harrigan, Albany, N. Y., $39,000.

Kirkwood-River Road No. 834, Broome County, 7.50 miles: T. H. GILL CO., Somerville, Boston, Mass., $75,676 (awarded contract); Almahar Construction Co., Albany, N. Y., $78,580; James E. Martin, Poughkeepsie, N. Y., $87,496; Newport Construction Co., Newport, N. Y., $76,797; Browne & Lowe, Schenectady, N. Y., $87,659; Creeden & Pitou, New York, $89,500; Harvey B. Sproul, Peekskill, N. Y., $76,990; Morris Kantrowitz, Albany, N. Y., $82,000; E. D. Baker, Binghamton, N. Y., $79,839.

Deposit-Hale's Eddy Road No. 5045, Delaware County, 3.04 miles: ALMAHAR CONSTRUCTION CO., Albany, N. Y., $46,764 (awarded on residuum products); Creedon & Pitou, New York, $53,610; Delaware Construction Co., Sidney, N. Y., $54,600; Flood & Van Wert, Hudson Falls, N. Y., $51,500, James E. Martin, Poughkeepsie, N. Y., $60,989; C. E. Jordan & Co., Albany, N. Y., $48,824; A. D. Young, Brooklyn, N. Y., $54,700; Edwin D. Baker, Binghamton, N. Y., $56,612.

Scottsville-Mumford Road No. 5046, Monroe County, 5.77 miles: MONROE ROADS CO., Pittsford, N. Y., $57,906 (awarded on residuum products basis); Thomas Holahan, Rochester, N. Y., $61,152; Whitmore, Rauber & Vicinus, Rochester, N. Y., $60,100; Mosier & Summers, Buffalo, N. Y., $66,112; Frederichs Co., Rochester, N. Y., $61,000; Joseph Dunfee, Syracuse, N. Y., $63,179; Chambers & Grady, Rochester, N. Y., $67,437; Greece Construction Co., Rochester, N. Y., $58,660; Ripton & Murphy, Rochester, N. Y., $60,966; Schroeder-Hicks Construction Co., Rochester, N. Y., $60,450; James Anderson, New Haven, Conn., $71,572; Frank L. Cohen, Buffalo, $63,400; Northwestern Construction Co., Franklin, Pa., $60,602.

Castile-Center-Perry Center Road No. 854, Wyoming County, 4.50 miles: GREENE CONSTRUCTION CO., Rochester, N. Y., $54,925 (awarded on residuum products basis); Mosier & Summers, Buffalo, N. Y., $59,672; Monroe Roads Co., Pittsford, N. Y., $57,790; Schroeder-Hicks Construction Co., Rochester, N. Y., $58,106; Frank L. Cohen, Buffalo, N. Y., $58,900; Northwestern Construction Co., Franklin, Pa., $57,372.

Sanborn-Pekin Road No. 740, Niagara County, 2.75 miles: LOUIS H. GYPP CO., Buffalo, N. Y., $26,950 (awarded on Bermudez); Reed, Coergson Engineering Co., Niagara Falls, N. Y., $28,570; Joseph Dunfee, Syracuse, N. Y., $28,508; Northwestern Construction Co., Franklin, Pa., $27,277; Frank L. Cohen, Buffalo, N. Y., $27,500; Busch & Percival, $30,009; Eugene T. Forestal, Buffalo, N. Y., $27,267.

Dannville-Mt. Morris Road No. 715, Part 2, Livingston County, 4.54 miles: NORTHWESTERN CONSTRUCTION CO., Franklin, Pa., $55,792 (awarded contract); Greece Construction Co., Rochester, N. Y., $58,703; Morris Kantrowitz, Albany, N. Y., $59,000.

Eighteen Mile Creek Road No. 5054, Erie County, 2 miles: FREDERICK J. MUMM, Buffalo, N. Y., $28,000 (awarded contract on Trinidad); Joseph Dunfee, Syracuse, N. Y., $28,770; Bush & Percival, Buffalo, N. Y., $31,229; Mosier & Summers, Buffalo, N. Y., $30,376; Frank L. Cohen, Buffalo, N. Y., $28,900; John E. Johnson, Buffalo, N. Y., $29,441.

Roberts Road No. 857, Chautauqua County, 1.62 miles: COUNTY OF CHAUTAUQUA, by W. L. Notally, Finlay Lake, N. Y., $32,486 (awarded contract); E. M. Love & Son, Corry, Pa., $34,579; George M. Harris, Meadville, Pa., $33,374; James P. Morrissey, Dunkirk, $35,995; Peter F. Master, Dunkirk, N. Y., $35,237; Louis H. Gypp Construction Co., Buffalo, N. Y., $35,800; Frank L. Cohen, Buffalo, N. Y., $35,100; Herlihy & Lyon, Fredonia, N. Y., $35,000; Clarence Aikenhead Co., Rochester, N. Y., $35,100; Constantina Construction Co., Buffalo, N. Y., $34,659.

Meriden Village Road No. 852, Cayuga County, .81 miles: ALBERT GAFFEY, Syracuse, N. Y., $11,800 (awarded contract on Bermudez).

Otselic-South Otselic Road No. 664, Part 1, Chenango County, 4.33 miles: JOSEPH McCORMICK, East Providence, R. I., $43,188 (awarded contract); Conroy & Nixdorf, Oneida, N. Y., $45,000; John H. Gordon, Albany, N. Y., $46,768; P. H. Murray, Rochester, N. Y., $48,000; Delaware Construction Co., Sidney, N. Y., $53,000; Joseph H. Connors & Co., Fulton, N. Y., $47,000.

Georgetown-Otselic Road No. 811, Madison County, 2.39 miles: JOSEPH McCORMICK, East Providence, R. I., $23,749 (awarded contract); Conroy & Nixdorf, Oneida, N. Y., $25,000; Delaware Construction Co., Sidney, N. Y., $24,800; John H. Gordon, Albany, $26,100; Joseph H. Connors & Co., Fulton, $24,900.

Lima-East Bloomfield Road No. 5041, Part 2, Ontario County, 2.41 miles: CHARLES O. McCOMB, Syracuse, N. Y., $34,500 (awarded contract on residuum products); P. H. Murray, Rochester, N. Y., $35,850; Monroe Roads Co., Pittsford, N. Y., $36,572; Mosier & Summers, Buffalo, $35,759; Thomas Holahan, Rochester, N. Y., $39,808; Schroeder-Hicks Construction Co., Rochester, N. Y., $35,595.

Mexico-Union Square Road No. 5044, Part 1, Oswego County, 3.50 miles: CUNNINGHAM & WOODWARD, Hudson Falls, N. Y., $39,640 (awarded contract on residuum products); James E. Martin, Poughkeepsie, N. Y., $47,598; Daniel L. Mott, Utica, N. Y., $45,700; Chambers & Grady, Rochester, N. Y., $44,535; Semper Bros., Watertown, N. Y., $40,554; P. H. Murray, Rochester, N. Y., $40,850; Burns Bros. & Haley, Watertown, $39,596; James Anderson, New Haven, Conn., $45,913; Corlear Construction Co., Schenectady, $41,290; Joseph H. Connors & Co., Fulton, $43,000.

NEW BRUNSWICK, N. J.—Bids will be received until April 11 for paving Eastern Ave., about 17,000 sq. yds. with vitrified brick bitulithic, granitoid asphalt, wood block or any other kind of suitable pavement to be selected by City Council. Abraham Jelin is Street Comr. Frederick C. Schneider is City Surv.

KEARNEY, N. J.—Bids will be received until April 7 by the Board of Chosen Freeholders at Jersey City for repairing the Newark Turnpike, Town of Kearny, consisting of bringing said road to grade and resurfacing the same. Walter O'Mara is Clerk.

*LANSDOWNE, PA.—Bids will be received until 8 p. m., April 22, by John W. Davis, Secy. Boro. Council, 22 Runnemede Ave., Lansdowne, for paving portions of Baltimore Ave. as the Council may direct, with shale blocks, bitulithic and asphalt sheet paving, according to specifications. William C. Shuster, Jr., Chn. of Highway Com., 17 South Lansdowne Ave.

ERIE, PA.—Bids were submitted to the State Highway Department at Harrisburg, on March 24, by ten firms for constructing 10,557 ft. of road improvement in Conneaut Township, the lowest being the Conestoga Contracting Co., House Bldg., Pittsburg, at $33,007, for a road with slag bottom and Beaver Valley limestone topping.

OIL CITY, PA.—We are officially advised that the city is preparing to advertise for about 32,000 sq. yds. of paving. C. W. Mullalhy is Controller; G. F. Roess is City Engr.

*WASHINGTON, D. C.—Bids are asked by the District Commissioners until 2 p. m., April 9, for grading about 36,000 cu. yds.

GREEN COVE SPRINGS, FLA.—See item under Light and Power Plants.

VICKSBURG, MISS.—Bids will be received by the Mayor and Aldermen until April 18 for paving Cherry St., from Glass Bayou to Finney St., 36 blocks, with bitulithic, asphalt, mineral rubber, vitrified brick, granitoid and wooden block. J. J. Hayes is Mayor; H. J. Trowbridge is City Clk.

CLEVELAND, OHIO.—We are officially advised that bids were received at the office of the Board of Commissioners of Cuyahoga County, Ohio, on March 30, for the improvement of Depot Road by grading, draining, improving the same from Wooster Pike at Strongsville Center to Prospect Road at Vigil in Strongsville Township in accordance with the form of contract and specifications to be furnished by Frank R. Lander, County Surv., Cleveland. The contract has been awarded to CHARLES A. WRIGHT, 3856 West 56th St., Cleveland, at $20,126. John F. Goldenbogen is Clerk.

Bids will be received until 11 a. m., April 16 by the Board of County Commissioners, John F. Goldenbogen, Clk., for grading, draining and improving the Bradley Road, Dover Township. Frank R. Lander is Co. Surv.

XENIA, OHIO.—Bids will be received until April 25 by the Board of County Commissioners for macadamizing about two miles of the Jamestown and Bowersville Pike. S. Milton McKay is County Superv.; A. G. Carpenter is Pres.

TOLEDO, OHIO.—Contracts for paving have been awarded as follows: Erie St., repaving 6,270 sq. yds. of asphalt, to ANDREWS ASPHALT PAVING CO., at $10,476; Maumer Ave. and Orchard St., 3,200 sq. yds. of brick, to OHIO PAVING CO., $8,337, and Valentine St., 8,550 sq. yds. of brick, to C. F. PETERS & SON, $6,913.

ORRVILLE, OHIO.—GEORGE B. HERRING & SON, of Mansfield, Ohio, have secured the contract for paving Mohican and Westwood Aves. at $10,209.

*WADSWORTH, OHIO.—Bids are asked by Louis F. Allen, Village Clerk, until noon, April 15, for grading, draining, curbing and paving with paving brick of South Main St. and College Sts. in the Village of Wadsworth, Ohio.

WESTON, OHIO.—Bids are asked by H. E. Jones, Village Clerk, until noon, May 2, for paving with vitrified brick or block and otherwise improving certain portions of Taylor St., from Main St. to the Otsego Pike Ditch. The Riggs & Sherman Co., The Nasby Bldg., Toledo, Ohio, is Engr.

COLUMBUS, OHIO.—Bids are asked by H. S. Holton, Dir. of Pub. Safety, Columbus, until noon, April 12, for the improvement of 10 streets; also for the construction of seven sewers.

Resolutions have been adopted by the City Council of Columbus, declaring it necessary to improve a number of streets as follows: 22d St., between Livingston Ave. and Columbus St.; Perry St., between King and Eighth Aves.; Mitchell St., from State St. to Rich St.; Sixth Ave., from High St. to Wesley Ave.; Donaldson St., from Washington Ave. to Parsons Ave.; Monroe Ave., from Main St. to Mound St.; Nicholas St., from Livingston Ave. to Raymond St.; Cozzins St., from Spring St. to Dublin Ave.; Jackson St., from Lazell St. to Sixth St.; Hanover St., from Hamilton Ave. to St. Clair Ave.; Heyl Ave., from Columbus St. to Reinhard Ave.; Hoffman Ave., from Capitol St. to Oak St.; Ohio Ave., from Livingston Ave. to Schiller St.; Rhoades Ave., from Franklin Park, South, to Bryden Road.

It has been resolved that it is necessary to construct an artificial stone sidewalk on both sides of Euclid Ave. between High St. and Wesley Ave. and on both sides of Kelton Ave., between Main and Mooberry Sts.; on both sides of Parsons Ave., from Sycamore St. to the south corporation.

CINCINNATI, OHIO.—Bids will be received at the office of the Board of County Commissioners until noon, April 29, for the following county work: Under Specifications No. 1—For improvement of North Bend and Burnt School House roads, from Harrison Pike to what is known as Giffin Pike or Lincoln Ave., Green Township. Fred Dreihs is Clerk.

The Board of Control has approved a number of street and sewer contracts including the award of a contract to pave Gest St., from McLean St. to State Ave., with granite, which has been let to J. B. WASHBURN at his bid of $67,694. The Engineer's estimate for this work was $91,944.

DAYTON, OHIO.—Bids are asked by the Commissioners of Montgomery County until 10 a. m., April 14, for grading and improving Union Road at Coler Hill, in Jefferson Township. J. O. Donovan is Clerk of the Bd.

SOUTH BEND, IND.—Bids will be received by the Board of Public Works until April 15 for paving and curbing LaSalle St. A. P. Perley is Clerk.

MUNCIE, IND.—Bids are asked by the Commissioners of Delaware County until 10 a. m., April 18, for the construction of the McCreery gravel road in Harrison Township. J. E. Davis is County Audr.

ANDERSON, IND.—Bids will be received in a short time by the Commissioners of Madison County for the construction of two brick highways each three miles in length and to include two streets in Anderson.

NEW CASTLE, IND.—The Commissioners of Henry County have ordered plans on which to ask for bids for the construction of three miles of macadam road east of Knightstown and to pave Main St. in Knightstown with brick.

MARION, IND.—Bids are asked by the Commissioners of Grant County until 1 p. m., April 23, for the construction of the Grant and Wabash county line gravel road.

ELKHART, IND.—Bids are asked by the Board of Public Works until 10 a. m., April 13, for paving Bower St. with tarvia filled with macadam and concrete curbing.

GOSHEN, IND.—The HOOSIER CONSTRUCTION CO. has been awarded a contract to pave Lexington Ave. and Jefferson Sts. with bitulithic material. Cost, $21,754.

FORT WAYNE, IND.—Bids will be received until April 14 by the Board of Public Works for paving portions of Berry, Pontiac, Division and Harmer Sts., and constructing cement sidewalks on High St. F. T. Benoy is Chn.

FLINT, MICH.—P. RYAN & SON, of Bay City, has secured the contract for paving Saginaw St., at $60,000.

CARMI, ILL.—A. W. EISENMAYER, of Granite City, Ill., has secured the contract for paving with brick streets in District No. 1 at $59,026.

LINCOLN, ILL.—The Board of Local Improvements has awarded the contract for paving portions of North Kickapoo, McLean and Clinton Sts. to A. D. THOMPSON, of Peoria, at $28,487.

PEORIA, ILL.—Bids are asked until 2 p. m., April 11, by the Board of Public Improvements for resurfacing with asphalt various streets in this city. George F. Simmons is Pres.

HUNTLEY, ILL.—We are officially advised that Hugh M. Price, 1207 Hartford Bldg., Chicago, has been selected to prepare plans and specifications for brick pavement in Huntley. Cost, about $23,000. There will be about 9,600 sq. yds. of brick paving on concrete foundation; 5,300 ft. of curb and gutter; 4,100 cu. yds. of excavation. John Donahue is Pres. Board of Local Impvts.

GALESBURG, ILL.—J. B. McAULEY was awarded the contract on March 29 for paving Losey St., at $29,992.

SHEBOYGAN, WIS.—The Board of Public Works has prepared plans, which are waiting for acceptance by the City Council, for constructing four brick pavements with stone curbing and three macadam pavements also with stone curbing. If these plans are accepted, bids will be advertised for soon.

PERRY, IOWA.—Bids are asked by the City of Perry until April 15 for the construction of the following work: Contract 1—20,600 sq. yds. bitulithic pavement on a concrete foundation; 9,500 ft. of combined curb and gutter; 5,000 cu. yds. grading. Contract 2—33,700 sq. yds. creosoted block on a concrete foundation; 18,850 ft. 6 x 20-in. cement curb; 11,000 cu. yds. grading. Charles Wilson is City Engr.

CLARINDA, IOWA.—Bids will be received until April 12 by C. W. Stuart, City Clk., for 20,500 sq. yds. of concrete paving of 5-in. Portland cement concrete.

DES MOINES, IOWA.—Bids are asked by the Constructing Q. M., until 3 p. m., April 28, for resurfacing certain macadam roads at Fort Des Moines, Iowa, approximately 44,000 sq. yds.

HARLAN, IOWA.—The LONA CONSTRUCTION CO., of Harlan, has secured contract for 23,000 sq. yds. of brick paving, at $53,116. Carl L. Hanson is Town Engr.

ST. PAUL, MINN.—The Board of County Commissioners, E. G. Krahmer, Audr., has awarded the contract for macadamizing Lexington Ave. to J. J. MERGENS, of Deephaven, Minn., at $14,680, and to the same contractor for graveling Centreville Road on a bid of $9,760. The contract for improving Bald Eagle Road has been awarded to P. J. Ryan, city, at $3,548.

The Board of Public Works, Peter Van Hoven, Pres., has awarded the contract for repaving Summit Ave. with asphalt from Selby Ave. to Dale St. to the GENERAL CONTRACTING CO., 445 Temple Court, Minneapolis, Minn. Their bid was $53,940. L. W. Rundlett is City Engr.

MINNEAPOLIS, MINN.—Bids are asked by Hugh R. Scott, County Audr., until 11 a. m., April 18, for graveling Road No. 85, Hennepin County.

The City Council Paving Committee has made apportions among wards, as follows: First, $4,750; Second, $2,031; Third, $16,000; Fourth, $7,500; Fifth, nothing; Sixth, nothing; Seventh, $5,419; Eighth, $20,000; Ninth, $12,000; Tenth, $3,218; Eleventh, $8,804; Twelfth, $6,000; Thirteenth, $4,369. Andrew Rinker is City Engr.

HAVRE, MONT.—Bids will be received until May 2 by James Holland, City Clk., for furnishing material, boulevarding, grading and constructing cement walks in Special Improvement Districts Nos. 9, 10, 11, 12 and 13, requiring about 37,900 sq. ft. of cement sidewalks, etc. S. L. Hanley is City Engr.

KANSAS CITY, MO.—On March 24 the County Court accepted the bid of FERN BROS. to grade and drain Holmes St., from 85th St. south to its intersection with the Kansas City and Martin City road, for $12,289. The distance is 3¼ miles. The Court also accepted the bid of HOOD & RANDALL to grade and drain Murphy Road from the southwest corner of the city farm to Swope Parkway and Raytown Boulevard, for $5,471. The distance is two miles.

FORT WORTH, TEX.—The METROPOLITAN CONSTRUCTION CO. has been awarded a paving contract amounting to about $130,000, to improve Lipscomb St. About two miles will be paved with mineral rubber.

HOUSTON, TEX.—A total of 72 miles of roads in Harris County is to be paved with shell and gravel within the next twelve months out of a recent road and bridge bond issue of $500,000, according to a schedule adopted by the County Commissioners' Court on March 31. A list of the roads to be improved follows: Westheimer, extension of four miles; Main St., extension of eight miles; Webster Air Line, 18 miles; San Jacinto Battleground, two miles; Scott St., three miles; Reynolds Ave., three miles; Clinton Road, 1½ miles; German St., extension of 2½ miles; total of 42 miles in Commissioner Precinct No. 1.

Cedar Bayou and Crosby, 3½ miles; Lynchburg and Crosby, 6½ miles; total of ten miles in Commissioner Precinct No. 2.

Humble Road, 3½ miles; East Montgomery Road, three miles; Kuyendall cut-off, three miles; total of 9½ miles in Commissioner Precinct No. 3.

Katy Road, 3½ miles; Washington County Road, 4½ miles; West Montgomery Road, two miles; total of ten miles in Commissioner Precinct No. 4.

On the Katy Road extension the Commissioners authorized the County Engineer to begin construction with gravel under the directions of the Court. Bids are asked on the Westheimer Road extension and three miles of the Lynchburg and Crosby road to be submitted at the April term of the Court. The County Engineer was authorized to enlarge the trackage facilities at the county's gravel pit in Fayetteville, in order to increase the output of the pit.

SEATTLE, WASH.—The following bids have been received by the Board of Public Works for asphalt paving on West Blaine St., etc.; (a) using granite curb; (b) using armored concrete curb: F. McLELLAN & CO., Burke Bldg., Seattle, (a) $68,692 (awarded contract), (b) $67,557; Independent Asphalt Paving Co., Third and Cherry Sts., Seattle, (a) $75,798, (b) $74,393; Barker Asphalt Paving Co., (a) $72,895, (b) $71,381. R. H. Thomson is City Engr. Itemized bids are given under Contract Prices.

The following contracts have been let by the Board of Public Works: Hamlin St., grading, to S. NORMILE, at $11,350; 25th Ave. North, grading, to S. NORMILE, $5,673; Melrose Ave. North, paving, to BARBER ASPHALT PAVING CO., $41,722; Nagle Pl., asphalt paving, to BARBER ASPHALT PAVING CO., $1,387; 12th Ave. Northwest, grading, to J. T. DONALDSON & CO., $10,465; Lafayette Ave., grading, to N. D. JOHNSON, $14,040.

ELLENSBURG, WASH.—Bids are asked until April 11 by the City Council for paving 23 blocks in this city. The specifications cover brick, asphalt and bitulithic paving, the City Council to choose between the three when bids are opened. The specifications call for 49,200 sq. yds. for paving, 17,600 cu. yds. of excavation and 1,600 ft. of concrete curbing. G. N. Miller is City Engr.

OAKLAND, CAL.—Bids will be received by John P. Cook, Clerk of the Bd. of Superv. of Alameda County, until 10 a. m., April 11, for the construction of a 14-ft. roadway on

County Road Survey No. 4974 from Station 13 to Station 26, excepting crossing at Stoney Brook Creek, Niles Road District.

Frederick C. Turner, City Engr., has been directed to prepare plans to grade, curb and macadamize the south side of Twelfth St. dam, and also for paving with vitrified brick Second St., Eleventh St., from Clay to Grove Sts., and paving the crossing of Twelfth and Fallon Sts.; also East Twelfth St., from First Ave. to Lake Shore Ave.

A contract for grading, curbing and macadamizing East 37th St., between Bruce and 14th Sts., has been awarded to the PIEDMONT PAVING CO.

FORT ROSECRANS (San Diego post-office), CAL.—Bids are asked by Lieut. C. A. Lohr, Constr. Q. M., until 11 a. m., April 25, for constructing approximately three miles of roadway, including gutters, culverts, etc., through military and naval reservations, Fort Rosecrans, Cal.

LOS ANGELES, CAL.—Plans are being prepared in the office of the City Engineer for improving the following streets: Sixth St., from Los Angeles to San Pedro; Crown Hill Ave., from Lucas to Boylston St.; Boylston St., from Crown Hill Ave. to Third St.; Burlington Ave., from Pico to Hoover St.; Jefferson St., from Main St. to Key West Ave.; Wilmington St., from First to Second St.; Sixth St., from Alameda to Mateo St.; Ninth St., from Santa Fe Ave. to Los Angeles River; Vermont Ave., from Santa Monica to Santa Barbara Ave.; Mill St., from Sixth to Seventh St.; Los Angeles St., from Fourth to Fifth St.; Third St., from Figueroa to Boylston St.; Stephenson Ave., from Alameda to Third St.; Kenwood Ave., from Adams to 29th St.; Hoover St., from 25th to Adams St.; Vincent St., from Alameda to Fourth St.; Fourth St., from Central Ave. to Alameda St.; Tenth St., from Albany to Grattan St.; Wall St., from Third to Seventh St.; Tenth St., from Figueroa St. to Union Ave.; Ocean View Ave., from Bonnie Brae to Alvarado St.

HAMILTON, ONT.—Bids will be received until noon, April 9, for the construction of cement sidewalks in the township of Barton. J. Waller Page is Reeve, 34 Main St., East. Alfred G. E. Bryant is Township Clerk, Mount Hamilton.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

SOMERVILLE, MASS.—The Boston & Maine R. R. Co. has begun the erection of the first section of a series of buildings which, when completed, will constitute a repair plant covering 45 acres. The plant will be known as the "running repair" shop and will be located on the old Ten Hill farm, in East Somerville. The entire plant when completed will cost about $2,000,000, according to the Boston "Globe." The shop now in the course of construction will be 203 ft. long and 170 ft. wide and will be in three sections, the main section 70 ft. wide and 40 ft. high. In this main part of the building will be installed an electric traveling crane with a capacity for lifting 120 tons. The other two sections will contain the heavy machinery necessary for the work of locomotive repairs. The building, when ready, will accommodate ten locomotives at one time, and the whole plant will have a capacity for repairing 28 locomotives at one time. The structure now under way will cost with the machinery $170,000. Work on the remainder of the plant will go on as fast as the financial condition of the system will permit and will be undertaken in sections. The other buildings proposed to complete the plant are a car repair shop 962 ft. long and 130 ft. wide, a paint shop of about the same size and containing a transfer table 80 ft. long and other buildings containing pipe and tin work shops, a nickel plating shop, a lacquering and upholstering shop, sash and blind making shop, wood-working mill with a cabinet shop and blacksmith shop and car machine shop. Besides these there will be a lumber shop and drying kilns, a cleansing shop and storerooms and store yards for iron and timber work. A power-house 150 ft. long and 100 ft. wide will furnish power for the plant. J. P. Snow is Ch. Engr., Boston; H. Bartlett is Gen. Supt. Mech. Dept., Boston, Mass.

MILLBURY, MASS.—The West End Thread Co., of this city, has awarded a contract for an addition to its plant, which will be of brick construction, to the FISKE CARTER CONSTRUCTION CO., of Worcester, Mass. The building will be 40 ft. long by 35 ft. wide and will be located to the east of the present plant. The concern manufactures flax and linen yarns. F. W. Hooper is Mgr.

BRIDGEPORT, CONN.—The Connecticut Co., of New Haven, Conn., is planning to spend nearly $750,000 in the Bridgeport district this year. An addition will be made to the power plant on Seaview Ave., and with the new equipment the capacity of the plant will be raised to 5,000 HP., an increase of about 33⅓%. Car barns, one of which will have a housing capacity of 110 cars, are being erected on Congress St. The investment in structural operations will amount to approximately $500,000. In addition, the company is planning to rebuild various sections of its system, and several extensions will also be made. Special work includes 2½ miles of double-tracking on the Milford line. E. Gagle, New Haven, Conn., is Ch. Engr.

NEW BRITAIN, CONN.—Max J. Unkel-Bach, and Delbert K. Perry, Assoc. Archs., Sovereign Bldg., New Britain, have completed plans for the carriage factory to be erected in East Main St. by the New Britain Carriage Co., W. J. Morrin, owner. It will be of brick, mill construction, three stories high, 50 × 90 ft., with steam heat, gravel roof, iron girders, freight elevators.

MERIDAN, CONN.—The Barbour Silver Co., manufacturer of silver-plated ware, has completed plans for a 4-story additional brick factory.

HARTFORD, CONN.—We are officially advised that the TIDEWATER BUILDING CO., 16 East 33d St., New York, has secured the contract for the erection of factory buildings for the Underwood Typewriter Co., of New York, at Hartford. These include one building, 444 × 50 ft., five stories, another building, 179 × 100 ft., one story, and the present building, known as the Board of Trade building, 355 × 45 ft., will be raised an additional story. The construction will all be brick, mill construction, with gravel roof, skylights, steam heat, electric lights, etc. The additional power and equipment have been arranged for.

STAMFORD, CONN.—We are officially advised that Charles T. Main, Mill Engr. and Arch., 201 Devonshire St., Boston, Mass., has completed plans for three buildings for the Yale & Towne Mfg. Co., Stamford. The plans cover Building No. 6, 57 × 57 ft., six floors, 3 floors reinforced concrete, 3 floors slow burning mill construction, saw tooth roof; Building No. 12, 153 × 50 ft., six floors, slow burning mill construction, all beams of wood, saw tooth roof; Building No. 12½, 60 × 50 ft., six floors, reinforced concrete throughout except roof of slow burning mill construction. All these buildings will have walls of brick, first floor on ground level and every floor waterproofed. They will have tar and gravel roofs. The contract has been awarded to the H. WALES LINES CO., of Meriden, Conn.

NEW YORK, N. Y.—We are officially informed that BROCKART & BUTTELMAN, 102 Palmetto St., Brooklyn, have secured the general contract and LOUIS ABEL, 327 Irving Ave., the carpentry for the 5-story brick factory, mill construction, 50 × 100 ft., for S. M. Farber, manufacturer of brass goods, 455 Broadway, New York. B. Finkensieper, 134 Broadway, Brooklyn, is Arch. The location is at South Fifth St., between Bedford and Driggs Aves., Brooklyn.

BUFFALO, N. Y.—We are officially advised that the ABERTHAW CONSTRUCTION CO., 8 Beacon St., Boston, Mass., has been awarded contract by the Pierce-Arrow Motor Car Co., of Buffalo, N. Y., for two additional buildings as follows: Truck assembly building, one floor, mushroom construction, completes the square, the other two sides of which are formed by the storage and nickel plating buildings, being completed by the above concern. It is L-shaped, 60 ft. wide by 248 × 181 ft., and will be built so that three additional floors may be added later. The court, 188 × 121 ft., formed by the above buildings, is covered by a roof of saw tooth construction. Addition to motor testing building and garage, one floor, beam construction, 55 ft. wide, divided into two sections, 50 ft. and 150 ft. long. The longer section is to be used as the garage and here the roof will be supported by beams with a clear span of 55 ft.

The Willet Engine & Carbureter Co. has increased its capital stock to $1,000,000 for the purpose of erecting a plant for the manufacture of commercial vehicles in addition to engines and carbureters. The site has not yet been selected. J. D. Willet is Pres., 420 Prudential Bldg., Buffalo.

We are advised that Dodge & Day, Engrs., 608 Chestnut St., Philadelphia, have been retained by the Niagara Machine & Tool Co., of Buffalo, in connection with the layout of a plant which this company will build upon the site recently acquired on the Belt Line. The plant will include a machine and erecting shop and store and office buildings. As soon as these are completed and occupied, the company expects to undertake the construction of additional buildings to accommodate the work which for the time being will be continued in their present quarters.

HACKENSACK, N. J.—The Bergen Realty Co., of Hackensack, has sold 50 acres of land in Lodi Borough, near the Hackensack boundary line, to the Gregg Company, Ltd., of Newburgh, N. Y., on which it will build a plant to cost $500,000. This concern manufactures sugar refining machinery and sugar cane car equipment. Homes for the operatives will be erected, it is stated, on land adjoining the plant, owned by the realty company.

CHAMBERSBURG, PA.—The T. B. Woods' Sons Co., Chambersburg, will enlarge its plant by the addition of a foundry and machine shop, 100 × 500 ft.; a pattern shop, 40 × 130 ft.; a 2-story shipping and storage house, 60 × 130 ft., and an office building, 60 × 60 ft.

PHILADELPHIA, PA.—JOHN G. BROWN, Witherspoon Bldg., has the contract for the erection of a reinforced-concrete weaving factory, to be built for the William F. Read & Sons Co. at Twelfth and Jackson Sts. at a cost of about $50,000.

BALTIMORE, MD.—William G. Albrecht, Pres. of the bookbinding firm of Albrecht & Co., Sharp and Pratt Sts., has bought a lot at the northeast corner of Sharp and Dover Sts. It is 37 × 79 ft. A 4-story factory of steel construction will be built on the site. When finished it will be occupied by the firm.

The L. Greif Co., clothing manufacturers, Eutaw and German Sts., will build a factory on the east side of Milton Ave. near Ashland Ave. The plans are being drawn by Louis Levi, Arch., American Bldg. The building will be 75 × 100 ft. and one story high, with basement. It will be used for manufacturing clothing.

TUCAPAU, S. C.—The Tucapau Cotton Mills, of Tucapau, S. C., are planning the installation of 10,000 additional spindles, which would mean the expenditure of from $150,000 to $200,000. This company has 63,700 ring spindles, 1,696 narrow looms, etc. It is capitalized at $467,500. J. F. Cleveland, of Spartanburg, S. C., is Pres., and T. E. Moore, of Wellford, S. C., is Treas.

SPEIGNER, ALA.—The State Department of Prisons of Alabama has decided to install the electrical drive in the Alabama Cotton Mill at Speigner, Ala. This improvement will require an expenditure of $40,000 for preliminary work, including construction of concrete drains, etc., and an expenditure of $25,000 for the electrical machinery. The mill has an equipment of 6,600 ring spindles, 234 36-in. looms, etc., for producing duck, osnaburg, etc.

HUNTSVILLE, ALA.—It is understood that the management of the Lowe Mfg. Co., of Huntsville, Ala., will build an addition and will install looms. Instead of a 80 × 96-ft. addition and 200 looms, as at first planned, the company will arrange for a 144 × 80-ft. enlargement and 300 looms. This will make the expenditure over $100,000, instead of $75,000. The company has 25,600 ring spindles, 270 narrow looms, etc.

KNOXVILLE, TENN.—The Standard Knitting Mill, of Knoxville, Tenn., is planning an increase of capital and machinery. It contemplates doubling the present stock and mechanical equipment. The latter is 50 knitting machines, 136 sewing machines, etc.

COLUMBUS, OHIO.—The Ohio Metallic Specialty Co., recently incorporated, will erect a plant for the manufacture of specialties. The site will be selected later.

DOYLESTOWN, OHIO.—Plans have been about completed by the Ohio Comb & Novelty Co., of this city, for the construction of a factory building. The structure will be 40 × 200 ft. and of concrete building blocks, and as soon as plans are completed building operations will commence. The site will be selected soon.

EMPIRE, OHIO.—The Union Clay Mfg. Co. has been incorporated by D. J. Sinclair, George M. Myers and others to manufacture sewer pipe at Empire. A 12-kiln plant will be erected, employing 600 men.

YOUNGSTOWN, OHIO.—Ground has been broken by the Republic Rubber Co. for the erection of an $80,000 building, which will contain a belting department and a department for the manufacture of novelties. The company will employ 500 more men.

ASTABULA, OHIO.—It is reported that the Lake Shore & Michigan Southern Ry. Co., is to begin within 30 days the erection of a car repairing plant here, to cost $100,000 and to employ several hundred men. L. G. Parish, Cleveland, Ohio, is Supt. Motive Power.

ANGOLA, IND.—The Goodwin Lumber Co. will soon ask for bids for the construction of two mill buildings and a quantity of machinery to replace the building and machinery recently destroyed by fire.

PORTLAND, IND.—The Journey Mfg. Co. will soon ask for bids for the erection of a factory. Estimated cost, $50,000.

LA FAYETTE, IND.—Walter J. Ball, Pres. of the Commercial Club, announces that plans will be ready for bidders soon for the construction of an automobile plant for the American Motor Car Co.

GARY, IND.—Plans have been completed and approved for the plant of the American Sheet & Tinplate Co., at Gary, Ind., and contracts for foundation and construction work will be awarded at on[illegible] now being asked on the fou[illegible] and for some of the structural [illegible] tracts will be let for the firs[illegible] mills, while the finished plant w[illegible] 80 to 100 mills.

DETROIT, MICH.—M. J. T[illegible]on, 982 Scotten Ave., Detroit, has let [illegible] general contract for his new 3-story [illegible] factory, 50 × 100 ft., to W. F. KEHL, [illegible] Harper Ave.

The Detroit Lithographing [illegible] John Hutching, Secy. 119 Madison A[illegible] Detroit, has let the general contract fo[illegible] 2-story 55 Church St.; composition roofing [illegible] HOWIE ROOFING CO., 370 Fourth St.

Malcomson & Higginbothom, A[illegible] 404-5 Moffat Bldg., Detroit, are prep[illegible] plans and specifications for a 2-story fa[illegible] building, 582 × 70 ft., for the Regal [illegible] Car Co., Edwin E. Peake, Mgr., 75[illegible] [illegible]dward Ave., Detroit. Stock brick, [illegible]d cut stone, composition roof, struc[illegible] iron, cement and wood floors and elect[illegible] fixtures will be used in construction.

C. J. J. Barnes, Arch., 307 To[illegible] Bldg., Detroit, is preparing plans and [illegible]cifications for a 2-story and basem[illegible] baking plant, 95 × 83 ft., for the New E[illegible]nd Pie Co., William Van Eickle, Pres., [illegible] 16th St., Detroit. Construction will b[illegible] stock brick, Bedford cut stone, compo[illegible] roof and structural iron.

The Fisher Body Co., Charles T. Fisher, Secy., 1414-26 St. Antoine St., [illegible]roit, is letting contracts for a 3-story add[illegible], 122 × 70 ft., to its present 2-story bu[illegible]ing, to be built of stock brick, Bedford [illegible] stone, with composition roofing, electric fixtures, etc.

PONTIAC, MICH.—The E. M. F. Automobile Co., Walter Flangers, Mgr., Pontiac, has let the general contract for the fourth story addition, 55 × 300 ft., to the [illegible]iquette Ave. plant to ROY HABERHORN, 1[illegible] Seward St.

(Continued on page 137.)

CONTRACT PRICES.

(denotes that this work is advertised in Engineering News.)*

PUMPING ENGINE.—Phoenix, Ariz.—Bids were received March 14 by Robert A. Craig, Supt. W.-Wks., for a 5,000,000-gal. cross-compound Corliss pumping engine. The contract was awarded to NORDBERG MFG. CO., Milwaukee, Wis., at $13,545. The cylinders were 12½ × 30 × 30 ins. for the steam end and 13¾ × 30 ins. for the water end. The fly-wheel was 10 ft. in diameter, weighing 15,000 lbs., and the total weight of engine and pump was 85 tons. The duty was 140,000,000 ft. lbs.

STEEL CONDUIT.—Seattle, Wash.—Bids were received March 8 for building subdivision No. 5 of the Cedar River Water Supply System. The bidders were (A) C. F. Graft; (B) International Dredging Co.; (C) Jahn Contracting Co.; (D) HANS PEDERSON (awarded contract); (E) Sanfield & Ritchie, all of Seattle.

The itemized bids are as follows:

	A	B	C	D	E
935 lin. ft. 42-in. lock bar steel pipe, ⅝-in. thick	$11.90	$12.52	$13.50	$12.00	$13.85
935 lin. ft. (alternative) 42-in. riveted steel pipe, ⅝-in. thick	11.90	12.52	13.50	11.50	13.85
2,180 lin. ft. 36-in. lock bar steel pipe, ¼-in.	8.60	8.78	10.90	8.50	10.30
2,180 lin. ft. (alternative) 36-in. riveted steel pipe, ¼-in. thick	8.40	8.78	10.90	8.40	10.30
6,610 lin. ft. 32-in. lock bar steel pipe, ¼-in. thick	8.50	8.72	8.25	7.65	10.05
6,610 lin. ft. (alternative) riveted steel pipe, ¼-in. thick	8.50	8.72	8.25	7.60	10.05
600 lin. ft. 36-in. lock bar steel pipe, ¼-in.	8.56	8.74	7.90	7.50	10.15
600 lin. ft. (alternative) 30-in. riveted steel pipe, ¼-in. thick	8.58	8.74	7.90	7.40	10.15
1,965 lin. ft. 24-in. lock bar steel pipe, ¼-in.	7.50	7.29	7.25	6.50	9.05
1,965 lin. ft. (alternative) 24-in. riveted steel pipe, ¼-in. thick	7.50	7.29	7.25	6.40	9.05
250 lin. ft. 16-in. wood stave pipe, banded for 100-ft. head	3.27	2.13	2.50	2.50	2.15
180 lin.ft. 30-in. c.-i. pipe, Class A	10.00	9.87	11.00	10.00	16.65
600 lin. ft. 6-in. c.-i. pipe, Class A	1.25	1.08	1.75	1.50	1.65
2 30-in. gates (flanged), 450 lbs. test pressure	478.00	488.00	525.00	475.00	600.00
1 30-in. gate (flanged), 300 lbs test pressure	456.00	488.00	455.00	450.00	570.00
4 30-in. gates (flanged), 300 lbs	270.00	294.00	300.00	275.00	340.00
1 20-in. gate (flanged), 300 lbs	211.00	234.00	250.00	225.00	265.00
1 16-in. gate (hub end), 300 lbs	123.00	149.00	150.00	150.00	160.00
1 12-in. gate (flanged), 300 lbs	39.00	52.00	45.00	45.00	45.00
1 8-in. gate (flanged), 300 lbs	20.00	27.50	25.00	25.00	30.00
2 6-in. gates (hub and flange), 300 lbs	15.00	22.50	16.00	20.00	20.00
1 8-in. reducing valve	400.00	400.00	435.00	425.00	450.00
4 air valves, including 4-in. gate valves	96.00	88.00	95.00	100.00	50.00
2 brick chambers for air valves	60.00	30.00	50.00	50.00	75.00
6 brick chambers for large gates	60.00	150.00	75.00	60.00	120.00
1 brick chamber, standard	40.00	25.00	30.00	30.00	45.00
20,000 lbs. special castings	.07	.07	.07	.10	.09
3 M. ft. lumber for boxes and drains	20.00	30.00	25.00	35.00	25.00
20 cu. yds. concrete	8.00	10.00	12.00	10.00	8.50
Totals for lock bar pipe	$113,964	$116,302	$116,715	$105,809	$136,073
Totals for riveted pipe	$113,528	$116,302	$118,715	$104,534	$136,07[illegible]

factory building, 50 × 120 ft., to MALOW BROS., 1104 Mt. Elliott Ave.

John Scott & Co., Archs., 1603 Ford Bldg., Detroit, have let the following contracts for the proposed sheet metal factory for Ireland & Mathews Mfg. Co., 51-79 Iron St.: Structural iron to WHITEHEAD & KALES, Beecher St. & M. C. R. R.; masonry to HENRY CAREW, 210 Joseph Campeau Ave.; carpentry to JOHN WHITTAKER & CO., 51-

BARGE CANAL.—Albany, N. Y.—The item prices of the bids received by F. C. Stevens, Supt. Public Works, March 29, for Barge Canal Contract No. 39, for dredging a channel in the Oswego River, between Three Rivers and Fulton, a distance of 10.85 miles, were (A) Engineer's estimate; (B) James Stewart & Co., 30 Church St., New York; (C) S. Pearson & Son, Inc., 506 5th Ave., New York:

	A	B	[illegible]
Clearing, lump sum	$150.00	$150.00	$15[illegible].00
1,226,000 cu. yds. excavation	.77	.83	.90
5 M. ft. sheeting and bracing	50.00	50.00	5[illegible].00
500 lin. ft. round timber bracing	.25	.25	.25
5 M. ft. wooden sheet piling	55.00	55.00	6[illegible].00
144 cu. yds. second-class concrete	7.50	7.50	[illegible].00
11,072 cu. yds. wash wall	2.25	2.45	[illegible].50
250 cu. yds. second-class riprap	2.50	2.50	[illegible].00
250 cu. yds. third-class riprap	2.50	2.50	[illegible].80
314 cu. yds. fourth-class riprap	2.00	2.00	2.40
6,000 lbs. iron castings, plain	.035	.035	.035
Total	$972,900	$1,048,674	$1,13[illegible],471

RESER[illegible]OIR.—Ellenville, N. Y.—Bids were received [illegible]pril 1 for the construction of a new re[illegible]oir on the Mountain brook, from (A) Fa[illegible]-Root & Co., New York City; (B) W. S. Doyle. Ellenville; (C) John P. Cox, Ellenville; (D) Dodd Construction Co., Newburg. The Engr. is S. Whinery, 95 Liberty St., New York City. The itemized bids are as follows:

	A	B	C	D
Clear[illegible] lump sum	$125.00	$300.00	$90.00	$50.00
11,50[illegible] yds. excavation	1.10	2.00	1.80	1.65
30[illegible] yds. masonry	7.00	7.00	6.50	10.00
[illegible] yds. concrete, first class	8.50	8.00	8.00	8.00
[illegible] yds. concrete, second class	9.50	7.00	7.00	8.00
[illegible] yds. concrete, third class	9.30	6.00	6.00	8.00
[illegible] yd. concrete, fourth class	9.00	6.00	5.00	10.00
51[illegible] ft. intake pipe	1.40	.70	1.20	1.75
48[illegible] ft. c.-i. main	2.40	1.50	1.60	2.00
3,40[illegible] lbs. c.-i. specials	.07	.05	.05	.06
[illegible]egulating basin, lump sum	150.00	300.00	100.00	200.00
[illegible]ridge over gully, lump sum	400.00	300.00	350.00	850.00
[illegible] tons c.-i. pipe overflow	70.00	60.00	35.00	65.00
30[illegible] lbs. manholes	.07	.05	.05	.06
[illegible] gate valves, 10-in	50.00	37.50	36.00	35.50
[illegible] gate valve, 8-in	40.00	25.00	22.00	30.00
[illegible] flop valve, 10-in	30.00	40.00	34.00	85.00
45[illegible] lbs. reinforcing steel	.06	.05	.05	.06
Totals	$18,918	$28,368	$25,810	$26,399

ASPHALT PAVING.—Seattle, Wash.—Bids were received March 30 for paving West Blaine and other streets from (A) F. McLELLAN & CO. (awarded contract); (B) Independent Asphalt Paving Co.; (C) Barber Asphalt Paving Co., all of Seattle.

The itemized bids were as follows:

	A	B	C
Fixed estimate	$3,000.00	$3,000.00	$3,000.00
Clearing and grubbing (lump sum)	500.00	500.00	500.00
13,500 cu. yds. earth excavation	.30	.50	.50
1,081 lin. ft. curved granite curb	1.70	1.95	1.95
1,081 lin. ft. armored concrete curb	.65	.65	.55
17,994 lin. ft. straight concrete curb	.30	.35	.30
400 lin. ft. armored concrete alley curb	.70	.65	.63
24,076 sq. yds. asphalt paving	1.57	1.65	1.59
3,101 sq. yds. brick paving	3.70	3.60	3.50
136 sq. yds. brick gutters	2.50	2.75	2.70
4,675 sq. yds. extra concrete base, 1 in. thick	.10	.15	.15
545 sq. yds. concrete walks	.90	1.30	1.00
700 sq. yds. concrete walks relaid	.90	1.30	1.10
2 catch basins moved	25.00	20.00	20.00
1 single inlet	15.00	15.00	15.00
2 track inlets	8.00	10.00	6.50
35 inlets moved	3.00	3.00	5.00
15 monument cases	8.00	8.00	8.00
12 brick valve chambers	30.00	35.00	35.00
6 curb inlets	30.00	10.00	6.50
350 ft. 4-in. c.-i. pipe	.35	.50	.55
680 ft. 6-in. side connections	.70	1.00	.75
300 ft. 3-in. tile drain .6.	.10	.10	.15
50 cwt. coal for steam roller	.50	.50	.45
300 lin. ft. 3-in. sewer pipe	.20	.15	.25
Totals, granite curb	$68,691.82	$75,797.90	$72,894.54
Totals, armored concrete curb	$67,556.77	$74,392.60	$71,381.14

BARGE CANAL.—Albany, N. Y.—The item prices of the bids received by F. C. Stevens, Supt. Public Works, March 29, for Barge Canal Contract No. 78, providing for the construction of a dike 1.23 miles long on the Oswego River in the vicinity of Fulton, were: (A) Engineer's estimate; (B) Scott Brothers, Rome, N. Y.; (C) Cunningham & Woodward, Hudson Falls, N. Y.; (D) Parker & Beebe, Waterford, N. Y.; (E) I. M. Ludington & Son, Inc., Rochester, N. Y.; (F) Theodore C. Hailes, Jr., Albany, N. Y.; (G) Louis J. D'Isa, Granite Bldg., Rochester, N. Y.; (H) D. C. Stephens, Buffalo, N. Y.:

	A	B	C	D	E	F	G	H
106,700 cu. yds. excavation	$0.25	$0.30	$0.195	$0.24	$0.28	$4.255	$0.28	$0.29
92,400 cu. yds. forming embankment	.15	.09	.14	.12	.05	.16	.08	.05
17 cu. yds. second-class concrete	7.00	7.00	7.00	7.00	7.00	7.00	8.00	8.00
6,400 cu. yds. wash wall	2.25	2.50	2.15	2.25	2.70	2.30	2.25	2.45
50 lin. ft. 24-in. vitrified pipe, laid	2.00	2.00	2.00	1.90	2.00	2.00	2.00	2.00
Total	$55,154	$56,545	$47,722	$51,310	$51,995	$56,932	$51,904	$51,479

SEWERS.—New York, N. Y.—Bids were received by Cyrus C. Miller, Pres. Boro. of The Bronx, until 11 a. m., March 24, for constructing sewers and appurtenances in West 178th St., between Harlem River and Sedgwick Ave., and in other streets. The bidders were: (A) BRIGGS & McLAUGHLIN, 19 East 130th St. (awarded contract); (B) C. W. Collins, 5189 Broadway; (C) Felix Gasparsinni, 147 South Seventh Ave., Mt. Vernon; (D) Stanton Const. Co., 762 East 165th St.; (E) W. J. Brennan, 1968 Clinton Ave.; (F) F. V. Smith Const. Co., 125th St. and Lexington Ave.; (G) Beaver Engr. & Const. Co., 149 Broadway:

	A	B	C	D	E	F	G
25 lin. ft. wooden stave, 4 ft. 9 ins	$20.00	$30.00	$14.00	$15.00	$16.00	$30.00	$17.94
490 lin. ft. concrete sewer, 4 ft. 9 ins., reinforced	20.00	15.00	9.00	14.00	30.00	30.00	33.47
171 lin. ft. con. sewer, 4' 9" without reinforcement	15.00	12.00	9.00	13.00	14.00	18.00	16.85
522 lin. ft. concrete sewer, 2 ft. 9 ins	9.00	6.00	6.00	9.00	10.00	12.00	10.35
113 lin. ft. cast-iron pipe, 30-in	8.00	10.00	8.00	10.00	10.00	18.00	13.75
1,635 lin. ft. pipe sewer, 30-in	6.50	6.00	6.00	6.00	8.00	7.00	7.73
1,853 lin. ft. pipe sewer, 18-in	6.00	3.50	5.00	4.00	4.50	5.25	4.37
1,762 lin. ft. pipe sewer, 15-in	5.00	3.25	3.50	3.00	4.00	4.00	3.53
1,966 lin. ft. pipe sewer, 12-in	3.00	3.00	3.00	3.00	3.00	3.50	2.92
950 spurs	....	1.00	2.00	.01	....	2.00	1.00
85 manholes	60.00	50.00	50.00	60.00	60.00	70.00	79.12
20 basins	200.00	150.00	175.00	160.00	160.00	200.00	172.50
3,750 cu. yds. rock excavation	1.00	3.00	3.00	3.00	3.50	3.00	3.45
250 cu. yds. Class B concrete	6.00	8.00	7.00	5.50	7.00	6.00	9.20
1,400 cu. yds. broken stone	1.00	2.00	2.00	2.00	2.50	1.50	2.60
200 M. ft. timber	20.00	30.00	30.00	30.00	.....	50.00	57.50
16,500 lin. ft. piles	.10	.30	.30	.40	.....	.40	.35
14,800 lbs. steel bars, ⅝-in	.02½	.05	.04	.04	.05	.03½	.05
300 lin. ft. 12 to 24-in. drain pipe	....	1.00	2.00	1.00	.....	1.00	2.30
Total	$76,690	$78,574	$79,067	$80,918	$85,624	$106,346	$108,091

BARGE CANAL.—Albany, N. Y.—The item prices of the bids received by F. C. Stevens, Supt. Public Works, March 29, for Barge Canal Contract No. 21, providing for the excavating of the canal prism, constructing guard locks, highway bridge and abutments, between Genesee River and east end of Contract 6, were: (A) Engineer's estimate; (B) Maryland Dredging & Contracting Co., Baltimore, Md.; (C) William F. Gaynor and I. A. Hodge & Co., Syracuse, N. Y.; (D) Frederick A. Brotsch, Jr., Rochester, N. Y.; (E) Lane Brothers Co., Atavista, Va.; (F) Carter Construction Co., 184 La-Salle St., Chicago, Ill.:

	A	B	C	D	E	F
Clearing, lump sum	$250.00	$250.00	$250.00	$250.00	$250.00	$250.00
2,350,000 cu. yds. excavation	.55	.55	.55	.505	.485	.54
16 M. ft. sheeting and bracing	55.00	50.00	50.00	50.00	50.00	50.00
390,000 sq. ft. channeling	.20	.24	.24	.24	.20	.20
100 cu. yds. forming embankment	.15	.15	.18	.15	.15	.15
560 cu. yds. lining	1.50	1.50	1.80	1.50	1.50	1.50
3 M. ft. B.M. sawed lumber	55.00	55.00	60.00	55.00	55.00	55.00
6,400 cu. yds. second-class concrete	7.00	7.00	7.00	6.45	7.00	7.00
2,200 cu. yds. dry retaining wall, including coping	2.50	2.50	3.00	2.50	2.50	2.50
8,200 cu. yds. rock spoil protection	.75	.90	.75	.75	.75	.75
8,200 cu. yds. wash wall	1.75	1.40	2.00	1.75	1.75	1.75
400 sq. yds. cobblestone paving	1.25	1.25	1.25	1.25	1.25	1.35
100 cu. yds. third-class riprap	2.25	2.25	2.50	2.25	2.25	2.25
100 cu. yds. fourth-class riprap	2.00	2.00	2.25	2.00	2.00	2.00
27 lin. ft. 12-in. vitrified pipe, laid	1.00	1.00	1.00	1.00	1.00	1.00
2,400 lbs. structural steel	.05	.05	.06	.05	.05	.05
9,000 lbs. metal reinforcement	.035	.035	.04	.035	.035	.045
12,600 lbs. iron castings, plain	.035	.035	.04	.035	.035	.045
310 lin. ft. wooden fence	.20	.20	.24	.20	.20	.20
448,000 lbs. metal in guard gates	.055	.066	.065	.065	.05	.055
1,000 lin. ft. drilling bolt holes in rock	.60	.60	.60	.60	.60	.60
For maintaining traffic, lump sum	2,000.00	2,400.00	2,400.00	2,000.00	2,000.00	2,000.00
Cofferdams, pumping, bailing and draining, lump sum	4,000.00	4,800.00	3,000.00	4,800.00	4,000.00	4,000.00
Deduct price to be paid to the State of New York for buildings in place, which are to be removed by the contractor without expense to the State, per lump sum	100.00	100.00	100.00	100.00	100.00	100.00
Total	$1,475,900	$1,496,028	$1,498,860	$1,287,510	$1,223,150	$1,452,400

MANUFACTURING PLANTS.

(Continued from page 136.)

DETROIT, MICH.—Nettleton & Weaver, Archs., 1405 Penobscot Bldg., Detroit, are preparing plans and specifications for a 2-story factory building, 45 × 200 ft., and a 4-story building, 62 × 70 ft., a fourth story addition, 63 × 158 ft., and a 1-story forge building, 70 × 70 ft., for the Timken Detroit Axle Co., A. R. Demory, Mgr., 132-168 Clark Ave. Brick, composition roof, Bedford stone, structural iron and cement floor will be used in construction.

The American Agricultural Chemical Co., George W. Burton, Mgr., Forman and Carbon Sts., Detroit, will take bids soon on a 2-story fertilizer factory, 336 × 74 ft.

Roy Haberhorn, 169 Seward Ave., Detroit, will soon take figures on a 1-story addition to present factory, 49 × 160 ft., and a 2-story building, 56 × 80 ft., to be located at 703-9 Bellevue Ave., Detroit. Construction will be of brick, Bedford cut stone, composition roof and electric fixtures will be used in construction.

BELOIT, WIS.—A 2-story, 30 × 80-ft. addition will be made to the plant of the C. Mattison Machine Works, manufacturers of woodworking lathes and other tools.

The Gardner Machine Co., manufacturer of gasoline engines, has commissioned the Frederick E. Little Engineering Co., Fond du Lac, Wis., to prepare plans for a fireproof factory and office building, 100 × 200 ft., to be of reinforced concrete construction. A section of 40 × 100 ft. is to be two stories in height. The second story to be used for offices and drafting rooms.

MILWAUKEE, WIS.—H. C. Koch & Sons, Archs., Wells Bldg., are preparing plans for a light manufacturing building to be erected for the G. D. Norris Estate at 19-21 Erie St., at a cost of $20,000. It will be 4-story, frame, 40 × 100 ft.

ST. PAUL, MINN.—W. BAUMEISTER has the contract, it is stated, for a 3-story brick factory building which Preston J. and Caroline Jacobson will erect on Jackson St., between Eighth and Ninth Sts. It will be 37 × 111 ft., with hardwood floors, steam heat, plumbing, gas, electric wiring. Cost, $14,000.

BRAINERD, MINN.—The Northern Pacific Ry. Co., W. L. Darling, St. Paul, Ch. Engr., is taking figures for the construction of a group of eight buildings at Brainerd, Minn. The following structures will be built: A 2-story brick foundry, storehouse, pattern shop, boiler house, coke sheds and sand mold sheds; total cost, $400,000.

OMAHA, NEB.—The American Hand-Sewed Shoe Co. will erect a 6-story addition to its plant at Twelfth and Harney Sts.

DICKINSON, N. DAK.—The Farmers' Elevator Co., L. Rader, Secy., will erect a 75,000-bushel elevator.

ST. LOUIS, MO.—The Shaft-Pierce Shoe Co., of Faribault, Minn., has decided to erect a factory here. The company will give employment to more than 500 people. Property secured for the proposed plant has a frontage of 160 ft. on the east line of Missouri Ave., beginning at the corner of the alley south of Chippewa St. by a depth of 125 ft. to an alley. Negotiations are pending for a strip 160 ft. front by 125 ft. deep fronting on the west side of Illinois Ave., and across the alley from the Missouri Ave. strip. This will give the shoe company a strip of ground 160 ft. by 270 ft., including a 20-ft. alley.

MARION, ARK.—The Frisco System is making plans for the construction of a freight terminal to be located at West Marion, Ark. The system will erect a roundhouse to accommodate 100 engines and shops that will necessitate the employment of at least 100 men. The company owns over 200 acres of land. Space for over 50 tracks has been graded and 24 tracks have been laid for more than a mile. It is estimated that the improvements at West Marion will cost over $500,000 and will be completed inside of a year.

TUCUMCARI, N. MEX.—We are officially advised that S. W. Bruce will form a corporation and will erect a sand-lime and shale brick plant, 40 × 70 ft., one, two and three stories high, to cost $2,000, for the building and $25,000 for equipment. The building will be constructed of iron, stone and wood. It will be a combination plant, alternating on sand-lime brick and shale brick. The shale beds cap sand stone and cover 200 acres. Contracts will be let in about three weeks.

NATIONAL CITY, CAL.—The Duro-Stone Co., Ingle Bldg., San Diego, Cal., has had plans drawn for eight factory buildings to be erected at National City, San Diego County. The product of the plant will be an artificial stone. J. H. Tracy is Pres.

SANTA MONICA, CAL.—R. J. Hollenbeck, of Rockford, Ill., will erect a factory at Santa Monico, Cal., to manufacture dental instruments.

PORTERSVILLE, CAL.—J. L. Hornsby is organizing a company to build a plant here to manufacture brick, with a daily capacity of 20,000.

SACRAMENTO, CAL.—The Southern Pacific Co. is planning to build a steel plant in addition to its railroad shop in Sacramento, it is stated. The entire arrangement of the shops here will be changed. An outlay of more than $1,000,000 is contemplated. H. J. Small is Gen. Supt. of Motive Power, San Francisco, Cal.

POINT RICHMOND, CAL.—Press reports state that ground for the erection of the proposed shops of the Pullman Co., 6 Adams St., Chicago, Ill., will be broken within the next 30 days. There will be an expenditure of $500,000 for the construction of the buildings. About 700 workmen will be employed in the shops. Surveys for the factory have been made. Both the Southern Pacific and Santa Fe lines will run into the tract to transport the products of the factory, which will be similar in design to the Chicago car shops. Concrete and steel will be used in the construction, and accommodations will be sufficient for the construction of 40 cars at one time. Modern machinery will be installed. All cars on lines west of Denver will be taken to Point Richmond for repair. Richmond Dean is Gen. Mgr.; Somner Smollett is Engr.

SALT LAKE CITY, UTAH.—The Griffin Wheel Co. has purchased a 17-acre site on which to erect a wheel manufacturing plant.

SARNIA, ONT. — The Cleveland-Sarnia Sawmills Co. has acquired the plant of the Empire Salt Co. for $100,000. The latter company will erect a larger and more modern plant here.

NEWMARKET, ONT.—The Office Specialty Mfg. Co. will erect an $80,000 addition to its plant this summer.

SASKATOON, SASK.—The Saskatoon Milling & Elevator Co. will erect a 1,000-bbl. flour mill.

MISCELLANEOUS CONTRACTS.

(* *denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

ROAD OIL.—New York, N. Y.—No bids were received on March 31 by the Department of Parks for furnishing and delivering 50,000 gals. of dust preventive or road oil.

SCREWS.—Washington, D. C.—Bids will be received by Capt. C. De F. Chandler, Signal Corps, U. S. A., until April 27, under proposal No. 438, for furnishing 5,000 gross assorted screws and bolts.

LOCK IMPROVEMENTS.—Cornwall, Ont.—Bids will be received until April 11 for improvement to Lock No. 17, Cornwall Canal, A. W. Campbell, Ch. Engr., Dept. of Railways and Canals, Ottawa, Ont.

*DREDGING.—New York, N. Y.—No bids were received by Col. W. M. Black, Corps Engrs., U. S. A., Army Bldg., on March 29, for dredging in Patchogue River, Great South Bay, N. Y., and Browns Creek, N. Y.

BREAKWATER. — Milwaukee, Wis.— Bids will be received until April 7 by the Bd. Park Comrs., Daniel Erdman, Chn., for furnishing material and constructing about 600 lin. ft. of breakwater for the shore protection on the Lake Shore Drive.

*COAL POCKET, WHARF EXTENSION.—Boston, Mass.—Bids will be received until 10 a. m., April 25, by Capt. A. M. Miller,

Constr. Q. M., U. S. A., 263 Summer St., Boston, for constructing a coal pocket, and extension to wharf at Ft. Strong, Boston Harbor, Mass.

SAND AND BROKEN STONE.—New York, N. Y.—Bids will be received by the Department of Docks and Ferries until noon, April 12, on Contract No. 1207, for furnishing and delivering about 9,000 cu. yds. of sand and about 12,500 cu. yds. of 2-in. and about 3,000 cu. yds. of ¾-in. broken stone.

SAND.—Atlanta, Ga.—Bids will be received by the Department of Justice, Office of Superintendent of Prisons, Washington, D. C., until 10 a. m., April 15, for furnishing and delivering at the United States Penitentiary, Atlanta, Ga., 10,000 cu. yds. of clean, sharp river sand.

SPRINKLING.—New York, N. Y.—Bids will be received until noon, April 12, by the Department of Docks and Ferries on Contract No. 1222, for furnishing all the labor and materials required for sprinkling certain new-made land on the North and East Rivers, Boro. of Manhattan.

DITCH, ETC.—Piggott, Ark.—Bids were received by Polk Mobley, Clk. County Comrs., March 26, for constructing main ditch and laterals in District No. 9, about five miles east of Piggott. Estimated quantities, about 470,927 cu. yds. Contract was awarded to the SOUTHERN DRAINAGE CO., Paragould, Ark., at about $42,000.

STEAM SHOVELS.—Washington, D. C.—The Secretary of the Interior has awarded contract to the ATLANTA EQUIPMENT CO., of New York City, for furnishing two 30-ton steam shovels for use in the work of the Reclamation Service on the Sun River and Flathead irrigation projects, Montana. The contract price is $6,900 each.

CRIB.—Chicago, Ill.—Bids were received as follows at the office of the Bureau of Navigation, Navy Department, Washington, D. C., on March 23, for the construction of the south outer crib at the harbor entrance, Great Lakes Naval Training Station: P. W. Galloway, Racine, Wis., $10,748; Great Lakes Dredging & Docking Co., Chicago, $13,770.

DREDGING.—Boston, Mass.—Bids were received as follows on April 2 by the Bureau of Yards and Docks, Navy Department, Washington, for dredging at the Navy Yard, Boston, Mass.: Eastern Dredging Co., 247 Atlantic Ave., Boston, item 1, 40 cts. per cu. yd.; item 2, 34.4 cts. per cu. yd.; J. P. O'Riorden, 6 City Sq., Boston, item 1, 40 cts. per cu. yd.

DREDGING.—New York, N. Y.—Bids were received as follows on March 29 by the Commissioner of Docks and Ferries for furnishing material and dredging about 200,000 cu. yds. in the Boroughs of Manhattan, Brooklyn, Queens and the Bronx (price given per cu. yd.): P. Sanford Ross, Inc., Jersey City, N. J., 24.9 cts.; R. G. Packard Co., 130 Pearl St., 20 8/9 cts.

DREDGING.—Brunswick, Ga.—Bids were received on March 21 by Col. Dan C. Kingman, Corps Engrs., U. S. A., Savannah, for dredging refractory material in Brunswick Harbor, Ga., as follows: Coastwise Dredging Co., Norfolk, Va., $2.95 per cu. yd.; total, $68,145. P. SANFORD ROSS, Inc., Jersey City, N. J., $2.80 per cu. yd.; total, $64,680 (awarded contract). Ross, Jacksonville, Fla., $3.25; total, $75,075.

LEVEE.—Santa Maria, Cal.—The Reclamation District Board, 798 Bldg., Santa Maria, has awarded the contract for constructing nine miles of levee along the Santa Maria River, from Fulger Point to the Pacific Ocean, to CORBOLEY, 317 Wilcox Bldg., Los Angeles; F. C. Finkle, 628¼ Spring St., Los Angeles, is Engr. Estimated cost, $40,000.

*CEMENT.—Denver, Colo.—The Secretary of the Interior is asking for proposals for furnishing 10,000 bbls. of Portland cement for use in the construction of the Strawberry tunnel, Strawberry Valley irrigation project, Utah. The cement is to be furnished f. o. b. cars at works of the contractor. The bids will be received at the office of the U. S. Reclamation Service, 408 Commonwealth Bldg., Denver, Colo., until 10 a. m., April 28.

COALING STATION, ETC.—Waterbury, Conn.—Bids for building a large railroad coaling station, trestle and loading platform for the Plume & Atwood Mfg. Co., Waterbury, Conn., were opened at the office of Charles H. Preston, Jr., C. E., Waterbury, on April 2. There were six bidders, the lowest of which was the YOUNG CONCRETE & CONSTRUCTION CO., of Waterbury, Conn., which was awarded the contract at $52.50 for all timber framed, per M, including the irons, and for all pile driving, 28 cts. per lin. ft.

*CEMENT.—Duluth, Minn.—Bids were received as follows by Lt. Col. Graham D. Fitch, Corps Engrs., Duluth, March 24, for furnishing 10,000 bbls. of American Portland cement for Superior Entry, Wis.: (A), price per bbl. delivered in U. S. warehouse; (B), less for each empty sack; (C), brand: Atlas Portland Cement Co., New York City, (A) $1.58, (B) 7.5 cts., (C) "Atlas"; Universal Portland Cement Co., Chicago, Ill., (A) $1.54, (B) 10 cts., (C) "Universal"; D. G. Cutler Co., Duluth, Minn. (recommended for acceptance), (A) $1.48, (B) 10 cts., (C) "Huron."

DERRICK BOATS.—Wheeling, W. Va.—Bids were received as follows by Capt. F. W. Altstaetter, Corps Engrs., U. S. A., on March 24, for furnishing and delivering three wooden hull maneuver boats with derricks, engines, etc., for dams Nos. 8, 11 and 26, Ohio River: M. A. Sweeney Shipyard & Foundry Co., Jeffersonville, Ind., $9,000 each; Monongahela River Consolidated Coal & Coke Co., Pittsburg, $6,642 each; Edgar M. Moore & Co., Pittsburg, $7,149 each; Thos. Carlin's Sons Co., Pittsburg, $5,200 each; Pittsburg Machinery & Equipment Co., Pittsburg, $5,880 each; J. M. Hammitt, Marietta, Ohio, $6,870 each; The Chas. Barnes Co., Cincinnati, Ohio, $7,400 each.

DREDGING.—Boston, Mass.—Bids were received as follows on April 1 by the Board of Harbor and Land Commissioners, Boston, for dredging a channel in Neponset River above Neponset Ave. highway bridge, requiring about 90,000 cu. yds. of excavation, scow measurement: J. P. O'Riorden, 6 City Sq., Boston, item 1, 35.7 cts. per cu. yd.; item 2, 35.7 cts. Bay State Dredging Co., 185 Summer St., Boston, item 1, 39 cts.; item 2, 36.5 cts.; Eastern Dredging Co., 247 Atlantic Ave., Boston, item 1, 33.9 cts.; item 2, 34.7 cts. CHARLES M. COLE, 80 Belmont St., Fall River, Mass., item 1, 29.9 cts. (awarded contract).

SUBMARINES.—Bids were received as follows on April 1, by the Secretary of the Navy, Washington, D. C., for the construction of submarine torpedo boats: Lake Torpedo Boat Co., Bridgeport, Conn., Design A-2, 460 tons, Atlantic delivery, one, $455,000; two, $440,000 each; three, $435,000 each; four, $432,500 each; Pacific delivery, one, $480,000; two, $472,000 each; three, $464,000 each; four, $461,000. Design B-2, 450 tons, Atlantic delivery, one, $447,000; two, $432,000; three, $427,000; four, $424,500; Pacific delivery, $480,000; two, $464,000; three, $456,000; four, $453,000. Design A-3, 585 tons, Atlantic delivery, one, $575,000; two, $560,000 each; Pacific delivery, $615,000; two, $605,000 each. Electric Boat Co., 11 Pine St., New York, Design 26-A, Atlantic delivery, one, $483,000; two, $472,000; three, $463,000; four, $456,500; Pacific delivery, one, $519,000; two, $504,000; three, $491,000; four, $479,000. Design 26-B, Atlantic, one $480,000; two, $469,000; three, $460,000; four, $453,000. Pacific, one, $516,000; two, $501,000; three, $488,000; four, $476,000.

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

		Noted in issue of
4- 9	Franchise, McKittrick, Cal	3-31
4- 9	Lighting fixtures, Los Angeles, Cal	4- 7
4- 9	Excavation, Valleyfield, Que	4- 7
4- 9	Lighting fixtures, Atlanta, Ga	4- 7
4-11	Street Lighting, Olney, Ill	4- 7
4-12	Turbine, etc., Sturgis, Mich	4- 7
4-12	Power plant, Otisville, N. Y	3-24
4-12	Lighting fixtures, New York	3-31
4-13*	Light system, Ft. Sill, Okla	3-17
4-14*	Power station, Rumford, Me	3-17
4-14	Elec. light plant, Tyndall, S. Dak.	4- 7
4-15	Elec. plants, Camrose, Alta	3-10
4-15	Elec. light bonds, Norwood, Ohio.	3-31
4-15	Electricity, Opelika, Ala	3-31
4-18	Engine and gen. set, Los Angeles, Cal	3-31
4-21*	Street lighting, etc., Seymour, Ind	3-31
4-22	Elec. lighting system, Fort Barranca, Fla	3-31
4-30*	Power plant, etc., Fort Terry, N. Y	3-31
4-30	Condenser, etc., Boston, Mass	3-31

Bridges.

4- 8	Bridge work, Hingham, Mass	3-31
4- 8	Bridges, Maryville, Mo	4- 7
4- 9	Bridge, Redcliff, Colo	4- 7
4- 9	Bridge, Ridgway, Colo	4- 7
4- 9	Bridges, etc., Richmond, Ind	3-31
4-11*	Superstructure, St. Joseph, Mich.	3-31
4-11*	Bridge, Syracuse, N. Y	3-31
4-11	Bridge, East Zorra, Ont	4- 7
4-11	Bridge, Montgomery, Ala	4- 7
4-12	Bridge work, Mauriceton, N. J	4- 7
4-12	Bridge, Shreveport, La	3-31
4-13	Bridge spans, Boblaygeon, Ont	4- 7
4-15	Bridge, Newberry, S. C	4- 7
4-15	Bridge repairs, Reading, Pa	3-24
4-16	Bridge, Dillon, Colo	4- 7
4-16	Superstructure, Fremont, Ohio	4- 7
4-16	Bridge, Lake, Md	4- 7
4-19	Bridge work, Nelson, Neb	4- 7
4-19	Abutments, Jefferson, Ohio	4- 7
4-22	Bridge work, Easton, Pa	4- 7
4-23	Substructure, etc., Mt. Vernon, O.	4- 7
4-23	Culvert, Cleveland, Ohio	3-31
4-25	Bridge, Columbus, Ohio	3-31
5- 3	Bridge, Cohasset, Minn.	4- 7
5-14	Bridge, North Chicago, Ill	4- 7
6- 1	Bridge, Gretna, La	3-24
6- 1	Substructure, Whiterocks, Utah	3-10

Buildings.

4- 8	Hospital, Columbus, Ohio	3-17
4- 8	Gymnasium, Meriden, Conn	3-31
4- 9	Quarters, Jefferson Bks., Mo	3-31
4-10*	Quarters, etc., Ft. Strong, Mass.	3-31
4-11	Post-office, Ashtabula, Ohio	3-10
4-11	Schools, New York	3-31
4-12	School, Alliance, Ohio	4- 7
4-13*	Laundry, Ft. D. A. Russell, Wyo.	3-24
4-14*	Schools, Bayonne, N. J	3-24
4-14	Post-office, Columbus, Neb	3-17
4-14	Marble, New York	4- 7
4-14	Schools, Cleveland, Ohio	4- 7
4-15	Cottage, La Fayette, Ind	3-24
4-15*	Field office, New York	3-31
4-18	Armory, Torrington, Conn	3-31
4-18*	Quarters, Ft. Strong, Mass	3-31
4-19	Post-office, Concord, N. C	3-24
4-20*	Post-office, Greencastle, Ind	3-24
4-20	School, Covington, Ind	4- 7
4-25	Quarters, Ft. Scevern, Ga	4- 7
4-25	Post-office, Kansas City, Kan	3-24
4-26*	Post-office, Rochester, Minn	3-24
4-26	School, Oswego, N. Y	4- 7
4-27*	Post-office, Enid, Okla	3-17
5- 2	Post-office, Lander, Wyo	3-24
5- 4	Post-office, Charleston, W. Va	3-31
5- 5*	Custom-house, Boston, Mass	3-31
5- 6	Post-office, Cleveland, Tenn	4- 7
5- 6*	Quarters, etc., Ft. H. G. Wright, New York	4- 7
5- 7	Post-office, Newark, Ohio	4- 7
5- 7	Storehouse, Bremerton, Wash	3-24
5- 7	Quarters, Bremerton, Wash	3-24
5- 9*	Post-office, Austin, Minn	3-31
5-10	Post-office, Great Falls, Mont	4- 7
5-11*	Vault, etc., Tacoma, Wash	3-31
5-12*	Post-office, Appleton, Wis	4- 7
5-13*	Post-office, Ottumwa, Ia	4- 7
5-14	Storehouse, Vallejo, Cal	4- 7
5-16*	Post-office, Shreveport, La	4- 7
7- 1	Plans, New Orleans, La	3-17

Water-Works.

4- 8	Water main, Corpus Christi, Tex.	3-31
4- 8	Reservoir, Grand Rapids, Wis	4- 7
4- 9	Canal, Theodore, Utah	3-31
4-11*	W.-Wks. bonds, Ramona, Okla	3-10
4-11*	Well, White Plains, N. Y	3-31
4-11	Water mains, etc., Saskatoon, Sask	4- 7
4-11	Boilers, Fort Robinson, Neb	4- 7
4-11	Tower and tank, Kankakee, Ill	4- 7
4-12	Special castings, Detroit, Mich	4- 7
4-12	Water supply ext., Polk, Pa	4- 7
4-12	Water mains, Fort Bayard, N. Mex	3-24
4-12*	Water-works, Kissimmee, Fla	3-31
4-12	Cast-iron pipe, etc., Winnipeg, Man	3-31
4-13	Water-works, Medford, Okla	4- 7
4-13	Special castings, New York	4- 7
4-14*	Water-works, Mason City, Iowa	4- 7
4-14	Reservoir, Fort Collins, Colo	3-24
4-14	Water-works supplies, Aberdeen, S. Dak	3-10
4-15	Water-works, Opelika, Ala	3-24
4-15	Water mains, Florence, S. C	3-24
4-15*	Pressure tunnel, Newton, Mass	3-31
4-18	Pump house, Weston, Ont	3-24
4-18	W.-wks. ext., Florence, S. C	4- 7
4-19	Laying pipe, etc., North Battleford, Sask	3-24
4-20	Pipe, Marietta, Pa	3-24
4-20*	Water-works, Youngstown, N. Y.	4- 7
4-20	Mains, New York	4- 7
4-20*	Water tower, etc., Willard, N. Y.	4- 7
4-22	Sub-laterals, N. Yakima, Wash	4- 7
4-22	Pumping engine, Fall River, Mass.	4- 7
4-22*	Well, Aurora, Ill	3-31
4-23*	Water system, Fort Strong, Mass.	3-31
4-23	Fire protection, Boston, Mass	3-31
4-23	Water-works, Booneville, Ind	4- 7
4-25*	Water system, Hood River, Ore	3-31
4-27	Pump-house, Weyburn, Sask	3-31
5- 1	Irrigation work, Calgary, Alta	3-24
5- 3	Water-works material, Breaux Bridge, La	4- 7
5- 3	Boilers, etc., Prince Rupert, B. C.	4- 7
5- 5*	Water system, Johnson City, Tenn.	4- 7

Sewers.

4- 8	Sewer, Louisville, Ky	3-24
4- 9	Sewers, Lorain, Ohio	3-31
4- 9	Sewer, Evansville, Ind	4- 7
4- 9	Sewer system, New Lexington, O.	4- 7
4-11	Sewer survey, Humboldt, Kan	4- 7
4-11	Sewers, Centerville, Iowa	4- 7
4-11	Sewer, Hartford, Conn.	4- 7
4-11	Sewer pipe, Moose Jaw, Sask	3-31
4-11*	Sewers, Laporte, Ind.	4- 7
4-12	Sewers, Columbus, Ohio	4- 7
4-14*	Sewer, Bridgeport, Conn	4- 7
4-14	Sewer extension, Canton, Ill	3-17
4-15	Sewer work, Big Stone Gap, Va	3-17
4-15*	Sewers, Louisville, Ky	3-31
4-16	Sewer, Lorain, Ohio	4- 7
4-19	Sewage pump sta., Dunville, Ont.	4- 7
4-19*	Sewer, Toronto, Ont	3-17
4-20	Disposal plant, Sebring, Ohio	4- 7
4-21	Sewer, Enid, Okla	3-31
4-22	Sewer pipe, Calgary, Alta	3-31
4-22	Sewer, Seattle, Wash	4- 7
4-23	Sewers, Chatham, N. J	4- 7
4-25*	Sewer, Klamath Falls, Ore	4- 7
4-26	Sewer, Leavenworth, Kan	4- 7
4-26	Plans, Pottsville, Pa	3-31
4-27	Sewers, Little Rock, Ark	3-31
4-27	Sewers, Cincinnati, Ohio	4- 7
4-28	Sewer, Fargo, N. Dak	3-24
4-28*	Sewer, Madison Baracks, N. Y	3-31
5- 1	Sewers, Danville, Ill	3-24
5- 2	Sewer system, Hawarden, Iowa	4- 7
5- 3	Sewer system, Manhattan, Kan	3-17

Streets and Roads.

4- 7	Turnpike, Kearney, N. J	4- 7
4- 8	Macadam, Pembroke, N. H	3-31
4- 8	Paving, Lincoln, Neb	3-31
4- 8*	Roads, Albany, N. Y	3-17
4- 8	Road, Cincinnati, Ohio	3-24
4- 8	Gravel road, Muncie, Ind	3-24
4- 8	Gravel road, Williamsport, Ind	3-24
4- 8	Macadam, Two Rivers, Wis	3-24
4- 9	Roads, etc., Ft. Slocum, N. Y	3-31
4- 9	Gravel roads, Frankfort, Ind	3-31
4- 9	Gravel roads, Fowler, Ind	3-31
4- 9*	Grading, Wash., D. C	4- 7
4- 9	Sidewalks, Hamilton, Ont	4- 7
4-11	Grading, New Haven, Conn	4- 7
4-11	State roads, Hartford, Conn	4- 7
4-11	Paving, New Brunswick, N. J	4- 7
4-11	Asphalt paving, Peoria, Ill	4- 7
4-11	Paving, Ellensburg, Pa	4- 7
4-11	Road, Oakland, Cal	4- 7
4-11	Paving, etc., Hartford, Conn	4- 7
4-11	Gravel road, Bedford, Ind	3-24
4-11	Paving, Aberdeen, S. Dak	3-24
4-11	Pavement, Moose Jaw, Sask	3-24
4-12	Macadam, St. Paul, Minn	3- 3
4-12	Turnpike, New Castle, Ky	3-31
4-12	Gravel roads, Noblesville, Ind	3-31
4-12	Paving, Columbus, Ohio	4- 7
4-12	Paving, Clarinda, Ia	4- 7
4-13	Macadam, Elkart, Ind	4- 7
4-13*	Macadam, etc., Ft. H. G. Wright, N. Y	3-31
4-14	Sidewalks, Connersville, Ind	3-24
4-14	Paving, Platteville, Wis	3-24
4-14	Paving, New York	4- 7
4-14	Paving, etc., Ft. Wayne, Ind	4- 7
4-14	Grading, Dayton, Ohio	4- 7
4-15*	Wadsworth, Ohio	4- 7
4-15	Paving, South Bend, Ind	4- 7
4-15	Paving, Perry, Iowa	4- 7
4-15	Gravel road, Kokomo, Ind	3-24
4-15	Macadam, etc., Bellefontaine, Ohio	3-31
4-16	Road, Cleveland, Ohio	4- 7
4-18	Gravel road, Muncie, Ind	4- 7
4-18	Gravelling, Minneapolis, Minn	4- 7
4-18	Paving, Vicksburg, Miss	4- 7
4-18	Paving, Spokane, Wash	3-31
4-19*	Paving, Dunkirk, N. Y	4- 7
4-20	Road, Cleveland, Ohio	3-31
4-20	Macadam, Columbus, Ohio	3-31
4-22*	Paving, Lansdowne, Pa	4- 7
4-23	Gravel road, Marion, Ind	4- 7
4-25	Road, Ft. Rosecrans, Cal	4- 7
4-25	Macadam, Xenia, Ohio	4- 7
4-28	Resurfacing, Des Moines, Iowa	4- 7
4-29	Road, Cincinnati, Ohio	4- 7
5- 2	Paving, Weston, Ohio	4- 7
5- 2	Paving, etc., Havre, Mont	4- 7

Miscellaneous.

4- 7	Breakwater, Milwaukee, Wis	4- 7
4- 8*	Electric railway, Ashtabula, Ohio.	3-31
4- 9	Excavation, Montreal, Que	3-31
4- 9	Levee, etc., Cameron, Tex	3-24
4-11*	Dredging, St. Paul, Minn	3-24
4-11	Lock impvts, Cornwall, Ont	4- 7
4-12	Sprinkling, New York	4- 7
4-12	Sand, broken stone, New York	4- 7
4-12	Shop equipment, etc., See Transcontinental Ry. (Rys.)	
4-12	Wall, Columbus, Ohio	3-17
4-12	Dredging, Ottawa, Ont	3-31
4-14*	Timber, Detroit, Mich	3-31
4-15	See Algoma Central & Hudson Bay Ry.	3-17
4-15	Tile, Woodstock, Ill	3- 3
4-15	Crematory (Garbage), West Point N. Y.	3-24
4-15	Sand, Atlanta, Ga	3-24
4-16	Dock removal, New York	4- 7
4-18	Stone, Vicksburg, Miss	3-31
4-19	Fire hose, Los Angeles, Cal	3-31
4-19*	Revetment, Vicksburg, Miss	3-31
4-21	Fire apparatus, Vancouver, B. C.	3-24
4-23*	Dredging, Newport, R. I	3-24
4-25*	Dredging, Chicago, Ill	3-31
4-25*	Lock gates, Kansas City, Mo	3-31
4-25*	Coal pocket, wharf extension, Boston, Mass	3-31
4-26*	Dredging, New York	4- 7
4-27*	Levee, Greenville, Miss	3-31
4-27	Screws, Wash., D. C	3-31
4-28*	Cement, Denver, Colo	4- 7
4-28*	Cement, Wheeling, W. Va	4- 7
4-29*	Revetment, Grand Haven, Mich	3-31
4-29*	Crematory, Atlanta, Ga	3-31
4-30	Ditch, Olivia, Minn	3-24
5- 4	Ditch, Conde, S. Dak	12-22
5-15	Watering carts, etc. (Garbage), Boston, Mass	3-24

Examinations.

4-13	Scientific Asst., Wash., D. C	3-31
4-20	Commandant of Cadets, Carlisle, Pa.	3-31
4-20	Banking economist, Wash., D. C.	3-24
4-20	Asst. chemist, Wash., D. C	3-24
4-20	Asst. physicist, Wash., D. C	3-24
4-20	Laboratory apprentice, Wash., D. C	3-24
4-20	Engr. in wood preservation, Wash., D. C	3-24
4-30	Asst. Electrical Engr., Albany, N. Y.	3-31
4-30	Asst. Engineer, Albany, N. Y	3-31
4-30	Asst. Inspector of Gas, Albany, N. Y.	3-31
4-30	Examiner in Drawing, Albany, N. Y.	3-31
4-30	Junior Bridge Draftsman, Albany, N. Y.	3-31
4-30	Leveler, Albany, N. Y	3-31
4-30	Supt. of Construction, Albany, N. Y.	3-31
4-30	Water Analyst, Albany, N. Y	3-31
4-30	Bridge designer, Albany, N. Y	3-31
4-30	Bridge draftsman, Albany, N. Y.	3-31
4-30	Architectural draftsman, Albany, N. Y.	3-31
5- 2	Chemist, New York	3-24
5- 4	Teacher of Agriculture, Carlisle, Pa.	3-31
5-18	Library asst., Wash., D. C	3-24

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at the office of The Engineering News Publishing Co., 220 Broadway, New York.

4-11*	Dredging, St. Paul, Minn.	(P. & S.)	3-24
4-15*	Pressure tunnel, Newton, Mass.	(P. & S.)	3-31
4-16	Dock removal, New York	(S.)	3-31
4-23	Fire protection, Boston, Mass.	(S.)	3-31
4-25*	Water system, Hood River, Ore.	(P. & S.)	3-31
4-30	Condenser, Boston, Mass	(S.)	3-31
5- 7	Storehouse, Bremerton, Wash.	(S.)	3-24
5- 7	Quarters, Bremerton, Wash.	(S.)	3-24
5-14	Storehouse, Vallejo, Cal	(S.)	4- 7

INDUSTRIAL NOTES.

THE GLIDDEN VARNISH CO., LTD., organized in Canada, March 2, 1910, has purchased the plant, business and good will of Blackwell Varnishes, Ltd., Toronto, Canada. The plant is now being remodeled and the capacity of same very largely increased, in order to handle better the rapidly increasing trade in concrete finishes and waterproofings.

DODGE & DAY, Philadelphia, have been retained by the Reliance Electric & Engineering Co., Cleveland, Ohio, to prepare preliminary plans and recommendations for a new plant which this company is about to build.

THE LEHIGH CONTRACTING CO., INC., engineers and contractors for the construction of railroads, bridges, buildings, highways, foundations, masonry and reinforced concrete construction, water-works, sewers, oil and gas lines, power plants, etc., announce the removal of its offices from Warwick, N. Y., to the Real Estate Trust Bldg., Philadelphia, Pa.

THE ABERTHAW CONSTRUCTION CO., Boston, Mass., has the contract for the construction of the new reinforced concrete warehouse of the Massachusetts Cotton Mills Co., Lowell, Mass. The building, located in the business section of Lowell, is to be 100 × 250 ft. in plan and twelve stories in height.